

## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



1934

★ FEB 3 1934  
U. S. Department of Agriculture



COPYRIGHT 1934

# THE GREENING NURSERY COMPANY

LARGEST GROWERS OF TREES IN THE WORLD

*Born 1850 - - Still Growing*

MONROE, MICHIGAN



Registered  
Trademark



Registered  
Trademark



# "IT'S UNDER THE BARK"

## The Priceless Secret of Greening Quality!



Benjamin J. Greening, President

We have just recently adopted a new slogan—"It's Under the Bark." It's under the bark — the secret of Greening quality! *It's in your pocket*—the extra profit that it brings to you!

With us, quality is more than just a business principle—or practice—or creed—or "battle cry" of business. It's an all-governing, all-controlling ambition. We live it—

talk it—dream it.

It shapes every decision—it governs every change of policy—it reaches down from the top to the bottom of our organization, like a growing tree reaches down

into the soil for sustenance and strength. It is basic—fundamental—vital.

Quality! Outstanding quality! Quality that insures many intangible superiorities. The natural result of a merciless search for superiority in everything we do. The *right thing*—the *best thing*—the most nearly *perfect thing each day*, in the absolute certainty that this policy in the long run is the safest both for ourselves and for yourself.

Thousands upon thousands of satisfied customers — commercial growers — farm orchard owners — throughout the middle western states enjoy the benefits of this unique quality policy. They make more money because the trees we sell them are better trees.

Take the blindfold off if you have not already done so. Buy "Trees You Can Trust"—Greening Super-Selected Fruit Trees—Greening Bud Selected Fruit Trees—fruit trees which have *under the bark* the ability to produce more and finer fruit—to make more money for you!

## Greening Bud Selection is to Old-Fashioned Nursery Methods What the Marvelous, New Streamlined Pullman is to the Old, Wooden Coach

The rickety, old, wooden day coach that was reduced to a mass of flaming, splintery wreckage whenever an accident occurred has finally given way to the modern all-metal, streamlined Pullman. It took years to bring about this much-needed improvement, but enlightened public opinion did it.

The same is true of *ordinary fruit tree propagation* methods. Trees of uncertain fruiting ability are now old-fashioned too. Obsolete — outdated — out-per-

formed by trees of known parentage — of known money-making ability.

Greening Super-Selected Fruit Trees—the only trees in which Greening Bud Selection is available—are the "modern, all-metal Pullmans" of the nursery field. Improved! Stabilized! Consistent money makers! Sold not on a "how much per tree" basis but "how much per acre" yield and profit! The *cheapest trees of all* in the long run! The trees that you should have in *your orchard*.





# You Can't Prune a Tree Without Tools!

## You Can't Meet Today's Competitive Conditions Without Eliminating Your "Drone" and "Boarder" Trees---Greening Bud Selection Provides the Only Way!

No poultry farm operator or hatchery owner would hatch chickens from eggs chosen at random. Parentage is important. Selection is the basis of superiority.

The successful dairy farm owner knows to a pound how much butter fat each cow produces, and the stock man, feeding beef cattle for market, selects only those animals he knows will make weight profitably.

The same laws of heredity hold true in fruit tree propagation. Greening bud selection is the modern science that gives "pedigree" advantages to fruit tree selection. Greening Super-Selected Trees are the only fruit trees that give you these advantages.

Fruit trees that can't, with proper care, produce choice fruit in profitable volume are not worth the valuable land they occupy. Neither do they justify the time, labor and expense necessary in caring for them. *Now* is the time when labor and replant stock are still low in cost—to pull out the "drones" and "boarders" and prepare your orchard to make more money.

When Charles E. Greening, then president of our company, discovered the principles of Greening Bud Selection 23 years ago, he discovered the priceless secret of *improved* and *stabilized* varieties and vastly increased orchard profits.

At first, like all truly important scientific discoveries, his discovery was treated with skepticism. Fruit

growers erroneously believed that the productive ability of the tree was entirely in the root stock. Horticulturists and nurserymen mistakenly said, "true to name" is all the assurance that is necessary as to a tree's fruiting ability.

Today we know that both of these ideas are wrong. After 23 long, tedious and costly years of experimentation and research, we are witnessing the universal recognition and acceptance of this scientific principle as outlined by Mr. Greening.

Scientific bud selection as originated by Greening, and still practiced exclusively by Greening, is the biggest thing in present-day fruit-growing practice.

The story of Greening Bud Selection is as profitable as it is fascinating. As a grower, you should read it, study it, learn to understand its simple underlying principles. *It will mean money in your pocket when you do.*



Howard D. Fashbaugh  
Vice President and Secretary

### Greening Bud Selection Means--- No More of These      But Lots of These



Periclinal Chimera—Wealthy and Giant Wealthy sectors in same apple



Solid Red McIntosh—photo supplied by Ralph Caryl, Asst. Pomologist, Bureau of Plant Industry, U. S. Dept. of Agriculture, Riverside, Cal.

# Now You Can Say "Good-Bye" to Virus Infection!

Greening Bud Selection methods eliminate virus diseases. This fact alone is worth the entire effort that has gone into creating Greening Super-Selected Fruit Trees.

Virus disease may be transmitted from one tree to another by grafting and budding. It is oftentimes present in the original nursery stock. It is *absent* in all Greening Super-Selected Trees.

Buds for Greening Super-Selected Trees are taken only from parent trees with a virus-free record. The Sun-Glo Peach parent tree, illustrated and described on page 24, from which buds for the propagation of this variety are taken, has a virus-free record of 11 years.

## Read What Dr. V. R. Gardner, of the Michigan State College, Says

"In 1922, the Horticultural Section of the Michigan Station began a study of this question, limited to field observations at first, then expanded to include propagation tests and laboratory studies. In assembling its present collection of over 400 'Selections' the Station has had the cooperation of the *Greening Nursery Company, of Monroe, Michigan, which had begun such a collection in 1910. Especially valuable has been the assistance of Mr. Roy Gibson, of the same firm, whose field observations, yield records, and other records of individual trees and limbs in hundreds of Michigan orchards extend back to 1917.*"



This is the book that contains Dr. Gardner's comment

## Read What Mr. Spencer, a Prominent Grower, of Kibbie, Michigan, Says

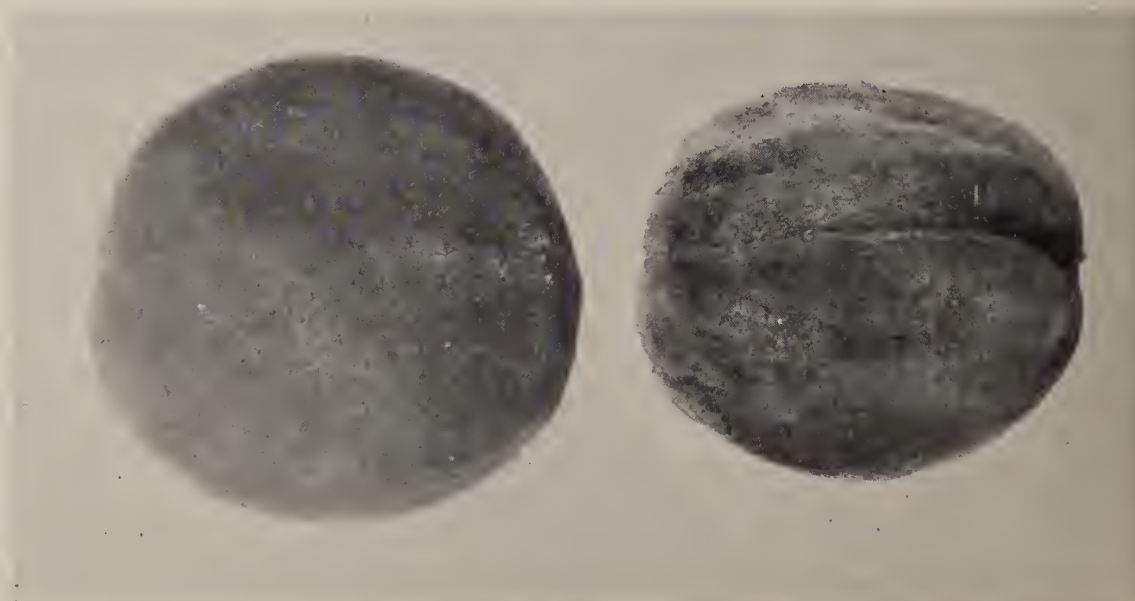
"This is to certify that Roy E. Gibson, with the Research Department of The Greening Nursery Co., Monroe, Michigan, kept bud selection records in our orchard of the South Haven peach variety beginning in 1920, and in 1923 cut propagating buds from Tree No. 20. This tree is the equal in every way of the original South Haven tree that was on our farm. Tree No. 20 was free from every symptom of Red Suture or other virus diseases in the seasons of 1923, 1924, 1925, 1926, 1927, 1928, 1929 and 1930, which condition was checked by Mr. Gibson and myself personally."

Floyd A. Spencer, Kibbie, Michigan

## Read What Mr. Barden, Another Prominent Grower, of South Haven, Michigan, Says

"This is to certify that Roy E. Gibson, with The Greening Nursery Co., Monroe, Michigan, has made observations and kept bud selection records in a number of varieties of peaches in our orchards. In 1926 he cut propagation buds from tree marked No. 2, which is an ideal type of Elberta and was free from symptoms of Red Suture and other virus diseases in the seasons of 1926, 1927, 1928, 1929 and 1930."

Floyd M. Barden, South Haven, Michigan



Healthy Peach and one with Red Suture



# "TRUE TO NAME" IS NOT ENOUGH!

## You Need the "Trade-Marked" Dependability of Greening Super-Selected Fruit Trees

Greening Bud Selection is crop insurance so far as it is possible to insure anything so dependent upon variable conditions of soil, climate, care, etc. Greening Bud Selection takes the *guesswork* out of fruit tree buying. It applies the principles of trade-marked merchandise to a commodity which heretofore had to be taken largely on faith.

You may be setting out a new orchard. You may be replanting or regrafting. No matter which it is, your selection of stock is highly important. As a fruit grower, you know that there are certain risks which you cannot avoid. Demand for your crop may vary; prices may fluctuate; certain elements of chance are inescapable. There is *one* risk, however, which you need no longer take, and that is the risk of planting unreliable trees—of investing time, money and years of your life in fruit trees of *unknown or uncertain fruiting ability*.

## Greening Bud Selection is an Exclusive Greening Feature; You Cannot Buy it in Any Other Fruit Trees

When anyone tells you "Oh, yes, bud selection is a good feature, but there is nothing exclusive about it—all nurseries practice it to about the same extent," you can put down one of two things: He is either ignorant of his subject, or he is misrepresenting the truth. Greening Bud Selection is a Greening feature and is available only in Greening-grown trees.

Unseen within every Greening Super-Selected Tree are those qualities of scientific bud selection which mean the difference between failure, or at best mediocre success, and a *truly satisfying, profitable fruit-growing experience*.

## A "Million Dollar" Library!

The book at the right (one of many) contains some of the most valuable fruit data in the world. Outwardly these books appear to be nothing more than ordinary office ledgers, yet few if any ledgers contain such priceless and irreplaceable data. *So valuable are they that they can be removed from the safe in which they are kept only on a special requisition*. As a further protection, duplicate records are in safe keeping elsewhere.

On the pages of these record books, many of them thumb-worn through constant use, are the detailed

records of thousands of individual trees—when they were planted, when they began to bear—how much fruit they bore each year—fruit characteristics as to quality, color, size and uniformity of shape.

Here, again, is another striking example of the scientific scrutiny with which Greening Bud Selection work is carried on. Without these books, bud selection would be impossible. Bud selection with us is more than a mere advertising claim. It is the very foundation of our business. It is the one distinctive and exclusive feature that no nursery man can give you until he has devoted an equal amount of time and study to its development. *And we have almost a quarter-century's head start*.

GREENING NURSERY CO. GREENING, MICHIGAN									
Tree Performance Record FOR RECORDING						Sheet No. 1000			
Grower: FARMER, JAMES						Post Office: ALBION, MICH.			
Orchard location: see notes						County: OAKLAND			
Soil: clay, loam						Elevation: 100-110 ft.			
						Variety: RED DELICIOUS			
Year	Culture			Pruning	Spacing	Fertilizing			
1900	600-400			thinning	10 ft. x 10 ft.	10 ft. x 10 ft.			
1901	600-400			2 1/2 ft. x 10 ft.	10 ft. x 10 ft.	6000 ft. x 10 ft.			
1902	600-400			2 1/2 ft. x 10 ft.	10 ft. x 10 ft.	6000 ft. x 10 ft.			
No.	Row	Tree	Size	Type	Health	Size	Color	Form	Amount
1	7	11	20 1/2 in.		11 1/2	2		10 1/2 bu.	
2	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
3	6	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
4	6	11	20 1/2 in.		10 1/2	2		10 1/2 bu.	
5	6	11	20 1/2 in.		10 1/2	2		10 1/2 bu.	
6	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
7	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
8	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
9	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
10	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
No.	Row	Tree	Size	Type	Health	Size	Color	Form	Amount
1	7	11	20 1/2 in.		11 1/2	2		10 1/2 bu.	
2	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
3	6	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
4	6	11	20 1/2 in.		10 1/2	2		10 1/2 bu.	
5	6	11	20 1/2 in.		10 1/2	2		10 1/2 bu.	
6	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
7	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
8	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
9	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
10	7	10	20 1/2 in.		10 1/2	2		10 1/2 bu.	
Remarks: 1900. Tree No. 1 in six years has produced 101 1/2 bu. apples. Average per year is 16.9 bu. (tree a lower annual average having produced six crops at 10 years old. Also note that the size of the fruit is larger than average size of the largest sample being 11 oz. 1000. Total for 60 trees 710.00 bu. Average per tree is 11.83 bu. with Record No. 1. Total for 60 trees 710.00 bu. Average per tree is 11.83 bu. with Record No. 1. Also compare size of trees, note total 101 1/2 bu. in 11 1/2 years average 10 bu.									

A Specimen Page



One of the Greening Tree Performance Record Books



# Hundreds of Leading Orchards Under Observation Constantly

## Every Owner Glad to Cooperate in this Merciless Search for Greater Quality and Productivity

Every year, through hundreds of leading orchards, whose owners gladly cooperate with him, there walks a man—notebook in hand—searching eagerly for trees of outstanding perfection.

This man is Roy E. Gibson, head of our Research Department, who, under the direction of Charles E. Greening, perfected the principles of Greening Bud Selection. To quote from a letter received from Mr. Stanley Johnson, Superintendent of the Michigan State Experiment Station, South Haven, Michigan, "Mr. Gibson is, I believe, the keenest orchard observer I have ever met."

It is Mr. Gibson's duty to select from trees with the highest performance records those parent trees from which buds are taken for the propagation of Greening Super Selected Fruit Trees. Only those trees that have produced fruit of superior quality, size, color, shape and uniformity—and in highly profitable volume—are selected for this purpose.

Each tree is given a number, painted on the trunk, and a record is kept for a number of years before any propagating buds are taken. A complete record of every Greening Super Selected Parent Tree is kept on file in the "million dollar library," available for inspection in our offices.

State Horticultural Colleges and Experiment Sta-

tions, leading pomologists, horticultural societies, and fruit growers everywhere are giving Greening their whole-hearted cooperation and support in this important work of orchard improvement.

To list just a few among those whose names will be familiar to every reader, there are:

Dr. V. R. Gardner, and  
Prof. C. P. Halligan,  
Michigan State College

A. D. Shamel,  
Physiologist U. S. Dept. of Agriculture,  
Riverside, California

H. P. Gould, and  
L. B. Scott,  
Pomologists Bureau of Plant Industry,  
Washington, D. C.

George M. Darrow,  
Bureau of Plant Breeding,  
Washington, D. C.

Stanley Johnson,  
Superintendent Michigan  
Experiment Station,  
South Haven, Michigan



Roy Gibson and Brooks D. Drain, of Massachusetts State College, on an Orchard Inspection Trip



How trees are marked for identification and study



Prices  
subject to  
change  
without  
notice.

# PRICE LIST

Spring 1934 Delivery

## GREENING NURSERY CO.

Monroe, Michigan

Born

1850

Still

Growing

TERMS—All shipments will be made C.O.D. unless cash is paid in advance of shipment. 5% Discount will be allowed from prices in this list for cash with order. No charge for packing.

GUARANTEE—We replace *FREE* any trees that fail to grow the first season and unqualifiedly guarantee our trees to be true to name. If through error any should prove untrue, we will replace without charge.

HOW TO FIGURE PRICES—1 to 10 trees or plants of assorted varieties sell at the Each Rate; 10 to 30 at the Ten Rate; 30 to 250 at the One Hundred Rate; 250 or more at the One Thousand Rate.

### IMPORTANT!

We list two classifications of Apple, Pear and Sour Cherry trees namely, GREENING'S SUPER-SELECTED and GREENING'S ORCHARD SELECTION. GREENING'S SUPER-SELECTED TREES are the highest type strains of the various varieties that it has been possible to produce through Bud Selection. These strains have been given our stamp of perfection. They are the finest blooded trees obtainable in the World. Refer to catalog for variety listings and strains. GREENING'S ORCHARD SELECTION TREES are produced from buds cut from bearing trees we have under observation but which have not yet completely passed the merciless tests of Mr. Roy E. Gibson, Chief of our Research Department, which would qualify them as Super-Selected Strains. These trees must not be confused with common ordinary fruit trees for before we select trees to place under observation for many years, they must possess qualities vastly superior to the average. We can supply all varieties of Apple, Pear and Sour Cherry trees listed in our catalog, in Greening's Orchard Selection trees.

#### GREENING'S SUPER-SELECTED APPLE TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal. & up, 5 ft. & up..	\$1.25	\$7.50	\$60.00	\$575.00
XX—2 Yr. Old 9/16" to 11/16" cal., 4 ft. & up 1.10		6.50	55.00	525.00
X—2 Yr. Old, 7/16" to 9/16" cal., 3 ft. & up .90		6.00	50.00	475.00

Refer to catalog for varieties and strains.

#### GREENING'S ORCHARD SELECTION APPLE TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal. & up, 5 ft. & up..	\$1.00	\$6.00	\$50.00	\$475.00
XX—2 Yr. Old, 9/16 to 11/16" cal., 4 ft. & up. .85		5.50	45.00	425.00
X—2 Yr. Old, 7/16" to 9/16" cal., 3 ft. & up. .70		5.00	40.00	375.00

We can supply these trees in all varieties listed in catalog.

#### GREENING'S SUPER-SELECTED PEAR TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal. & up, 5 ft. & up..	\$1.25	\$6.00	\$50.00	\$475.00
XX—2 Yr. Old, 9/16" to 11/16" cal., 4 ft. & up. 1.00		5.50	45.00	425.00

Refer to catalog for varieties and strains.

#### GREENING'S ORCHARD SELECTION PEAR TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal. & up, 5 ft. & up...\$	.85	\$4.50	\$40.00	\$350.00
XX—2 Yr. Old, 9/16" to 11/16" cal., 4 ft. & up. .70		4.00	35.00	300.00

We can supply these trees in all varieties listed in catalog

#### GREENING'S SUPER-SELECTED SOUR CHERRY TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal., & up, 4 ft. & up..	\$1.00	\$4.50	\$35.00	\$325.00
XX—2 Yr. Old, 9/16" to 11/16" cal., 3 ft. & up. .85		4.00	30.00	275.00

Refer to catalog for varieties and strains.

#### GREENING'S ORCHARD SELECTION SOUR CHERRY TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal., & up, 4 ft. & up..\$	.85	\$4.00	\$30.00	\$275.00
XX—2 Yr. Old, 9/16" to 11/16" cal., 3 ft. & up. .70		3.50	25.00	225.00

We can supply these trees in all varieties listed in catalog.

#### GREENING'S SUPER-SELECTED SWEET CHERRY TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal. & up, 5 ft. & up..	\$1.00	\$5.00	\$40.00	\$375.00
XX—2 Yr. Old, 9/16" to 11/16" cal., 4 ft. & up. .85		4.50	35.00	325.00

Refer to catalog for varieties and strains.

#### GREENING'S SUPER-SELECTED PLUM TREES

	Each	Per 10	Per 100	Per 1000
XXX—2 Yr. Old, 11/16" cal. & up, 5 ft. & up...\$	1.00	\$6.00	\$50.00	\$475.00
XX—2 Yr. Old, 9/16" to 11/16" cal., 4 ft. & up. .85		5.50	45.00	425.00

Refer to catalog for varieties and strains.

Note: All varieties of prunes are 5c per tree higher than prices listed above.

#### GREENING'S SUPER-SELECTED PEACH TREES

	Each	Per 10	Per 100	Per 1000
XXX—9/16" cal. & up, 4 ft. & up.....\$	.70	\$3.00	\$27.00	\$250.00
XX—7/16" to 9/16" cal., 3 ft. & up.....	.60	2.50	22.00	200.00
X—5/16" to 7/16" cal., 2 ft. & up.....	.50	2.00	17.50	150.00

The above prices apply to all varieties listed in our catalog except those varieties to follow

#### GREENING'S SPECIAL PEACH VARIETIES

FERTILE HALE	ORIOLE	SUN-GLO	Per 10	Per 100	Per 1000
XXX—9/16" cal. & up, 4 ft. & up.....	Each \$1.00		\$3.75	\$32.00	\$300.00
XX—7/16" to 9/16" cal., 3 ft. & up.....	.85		3.25	27.00	250.00
X—5/16" to 7/16" cal., 2 ft. & up.....	.70		2.75	22.00	200.00

#### THE FAMOUS HALEHAVEN PEACH

	Each	Per 10	Per 100	Per 1000
XXX—9/16" cal. & up, 4 ft. & up.....	\$1.00	\$4.00	\$35.00	\$325.00
XX—7/16" to 9/16" cal., 3 ft. & up.....	.85	3.50	30.00	275.00
X—5/16" to 7/16" cal., 2 ft. & up.....	.70	3.00	25.00	225.00

#### APRICOT and QUINCE TREES

	Each	Per 10	Per 100
XXX—3 ft. & up .....	\$.85	\$5.00	\$45.00

#### GRAPE VINES

Two Year No. 1 Grade—The finest plants obtainable.

	Each	Per 10	Per 100	Per 1000
Concord .....	\$.30	\$2.50	\$10.00	\$ 85.00
Caco, Fredonia and Portland.....	.75	6.00	35.00	
All other varieties .....	.40	3.75	15.00	

Refer to catalog for variety listings.

#### RASPBERRY PLANTS—Largest One Year

	Per 10	Per 100	Per 1000
Columbian .....	\$1.50	\$6.00	\$50.00
St. Regis .....	1.25	5.00	40.00
All other varieties .....	1.00	4.00	30.00

Refer to catalog for variety listings.

#### BLACKBERRY PLANTS—Largest One Year

	Per 10	Per 100	Per 1000
All Varieties .....	\$1.00	\$4.00	\$30.00

Refer to catalog for variety listings.

#### DEWBERRY PLANTS—Largest One Year

	Per 10	Per 100	Per 1000
Lucretia .....	\$1.25	\$5.00	\$40.00

#### ASPARAGUS ROOTS—Two Year No. 1 Grade

	Per 10	Per 100	Per 1000
Martha Washington .....	\$1.00	\$3.00	\$20.00

#### RHUBARB ROOTS

	Per 10	Per 100	Per 1000
All varieties .....	\$1.75	\$8.50	\$70.00

Refer to catalog for variety listings.

#### STRAWBERRY PLANTS

	Per 100	Per 1000
Mastodon, everbearing .....	\$3.00	\$20.00
All other varieties .....	2.00	12.00

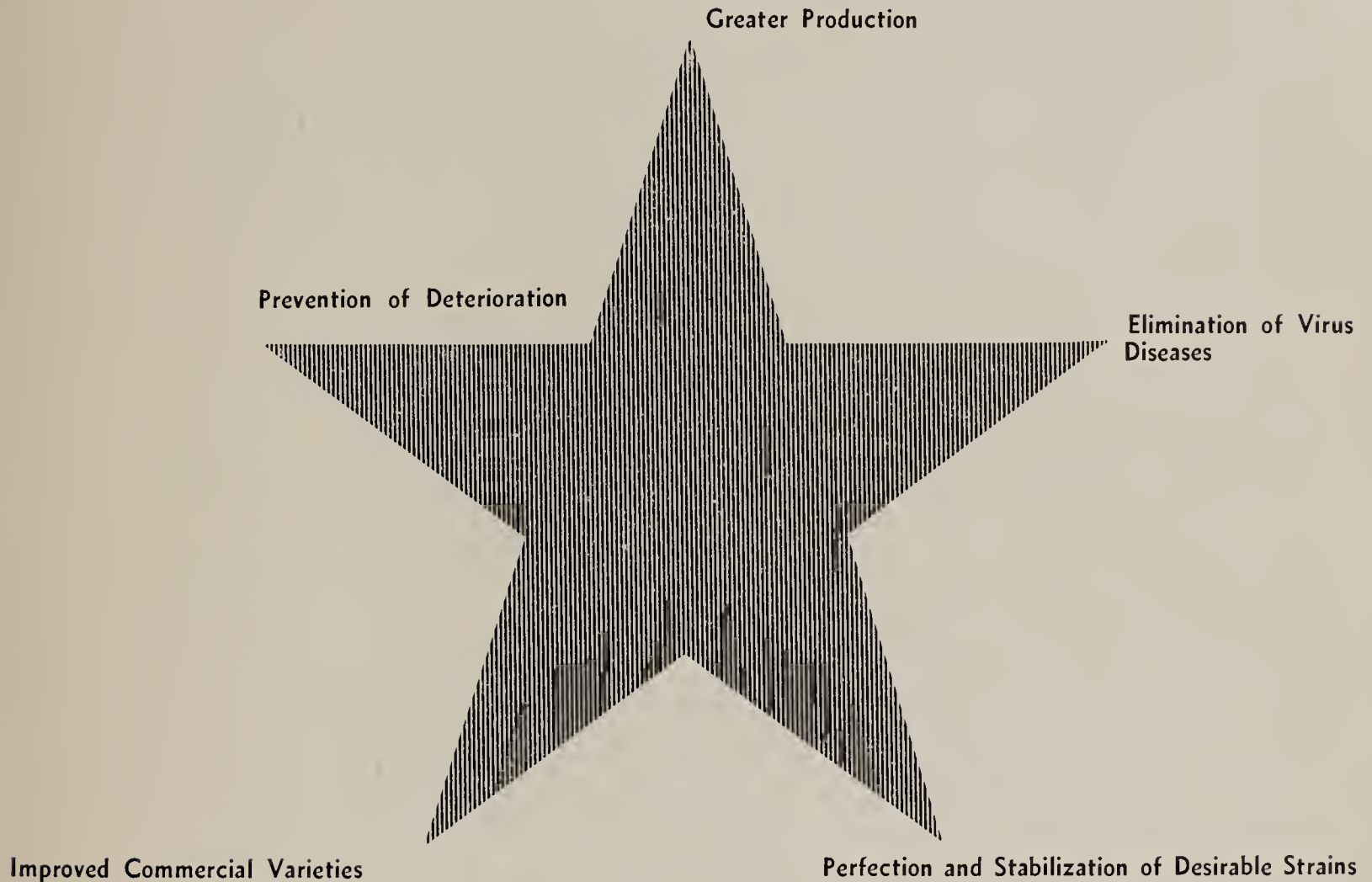
Refer to catalog for variety listings.





# The 5 Points of the Greening Bud Selection Star

What We Seek and GET for Your Benefit and Profit



## A Great Step Forward in Fruit Tree Propagation!

Greening Bud Selection is the scientific principle of fruit tree propagation, practiced exclusively by Greening for the purpose of *making more money for the fruit grower*.

Botany teaches us that buds and fruits are but the extensions of the twig growth, just as our hair and finger nails are outgrowths of the skin. The old-fashioned theory that all the buds from a tree of certain variety are identical is disproved by literally thousands of instances such as we see in the McIntosh orchard described on page 12.

Buds partake of the same cell characteristics as the branch on which they grow. A branch whose genetic factor produces solid red apples will produce solid red apples consistently, while a branch whose cell fac-

tors are mixed will produce mixed colored apples consistently.

The basic purpose of Greening Bud Selection is to locate, segregate and separate buds and scions of desirable and unmixed variety as to color, size, uniform shape, and early and consistent productive ability—and to propagate trees only from those buds and scions that have these essential qualities.

Undesirable characteristics that heretofore have been explained with some such remark as “those things just happen” are quickly understood once the scientific principles of Greening Bud Selection are understood. When they are understood, they can be eliminated, and *are being eliminated* constantly, in propagating Greening Super Selected Fruit Trees.

# Some Trees are 5 percent Efficient-- Some 95 percent

## The Primary Purpose of Greening Bud Selection is to Give Maximum Productivity and Maximum Money-Making Ability

Orchard trees vary in their inherited capacity to produce fruit. Few trees are barren, nor do we know that any are fully productive. Many are transitional—mixtures or combinations of different varieties—some of which tend to greater fruitfulness, and others less. Trees propagated in accordance with old-fashioned nursery practices represented innumerable combinations of these two groups of modifying factors, depending upon the relative amount of each charac-

teristic in the chimera (see bottom of page) propagating bud.

The ability to produce fruit in profitable volume is the first requisite in any fruit tree. High production is the thing we seek first in propagating Greening Super Selected Trees. Greening Super Selected Trees are profitable because they contain those inherent characteristics which enable them to set and mature unusually large crops of large, smooth, uniformly shaped and uniformly colored fruit.

## It Takes Years to Find Out if You Have Planted a "Mistake", Guard Against it with Greening Super Selected Quality

What's true in the proper selection of poultry stock and other livestock is doubly true in fruit trees, with this important distinction: If the poultry or livestock man makes a mistake in the selection of stock, he finds it out before he has invested much time or money. But the fruit grower in many cases must wait years to see whether or not he has planted a "mistake." There is only one way to make absolutely sure that you do not, and that is to standardize on Greening Super Selected

Fruit Trees. Each tree is a "Tree You Can Trust." Each tree is a direct descendent of a parent tree whose characteristics have been studied and checked for years.

When you plant Greening Super Selected Fruit Trees, you are putting your time and money into a sound orchard investment. Greening Bud Selection is the scientific bombshell that blasted, once and for all, old-fashioned propagating methods.

## From the Imperfect Comes the Perfect



A Sectorial Color Chimera

The word "chimera" comes from Greek mythology meaning "three beasts living in a single body." A chimera in a fruit sense is an apple a portion of which is large and a portion of which is small—or a portion of which is solid in color and a portion of which is striped.

Chimeras are mixtures—undesirable mixtures—imperfect fruit—less salable—less profitable to the fruit grower. Greening scientists study chimeras as a doctor studies his laboratory findings. Through this study we segregate and separate the undesirable qualities and characteristics. We eliminate the undesirable—we stabilize perfection. We give you fruit trees each variety of which always produces "true to form."



# "By their fruits ye shall know them"

## Fruit Characteristics Reveal Cell Factors



Green Bartlett and Yellow Bartlett sectorial chimeras, and the tree which produced them

## The Growth is Mixed--the Problem is to Segregate; Greening Bud Selection Does This

The tree and pears shown above are from the Experiment Station Farm at the Michigan State College, Lansing, Michigan. The scions came from a transitional limb found by Dr. V. R. Gardner, of Michigan State College, and Dr. E. J. Kraus, of the University of Chicago, when the two were working together in Oregon a number of years ago. The original transitional limb was a mixture of Green Bartlett and Yellow Fruited Bartlett variation.

Ordinarily, color variations can be seen only in the fruit, but in this unusual case, new growth from vegetative buds exhibits these same color variations. Many different combinations of the two factors are to be found in this tree. One small branch is unmixed, segregated to normal Green Bartlett. Segregation is already complete for this variety. The Yellow Fruited

Bartlett still shows in the young twig growth hair-line lines of green, which indicate that segregation is still incomplete for the Yellow Fruited variety.

Here we have two kinds of living tissue in one stem—the green tissue can produce Green Bartlett Pears *only* and the *yellow* can produce *Yellow Fruited* Bartlett Pears only. The growth is mixed. The problem in propagating under such circumstances is to *unmix, divide, separate and segregate*.

Selections based upon these principles of segregation were made in the Summer of 1927 and are now growing at the Graham Experiment Station, Grand Rapids, Michigan, where they are under observation and study constantly by Greening observers. It is this sort of study which has made Greening Bud Selection possible, *practical* and *profitable*.



# Greening Bud Selection Means Constant Orchard Improvement

**More "A's" --- Fewer Culls --- Bigger Yields --- Bigger Profits**

Every line of effort in connection with Greening Bud Selection has been directed toward one all-important and all-inclusive purpose, and that is, to make scientific bud selection commercially profitable to the grower. Science for science's sake alone has no place in the Greening plan of action. Science for *profit's* sake—for orchard improvement—is the primary objective of all Greening research.

## **BIGGER CROPS**

Aside from the extra expense of picking (which you are naturally pleased to pay), the most prolific tree in your orchard costs no more in time, care and materials than the poorest mongrel.

Greening Super Selected Trees produce the maximum crop under any given set of soil and climatic conditions. They do it regularly and consistently, because that *profitable fruiting ability* is bred into them by scientific bud selection.

## **BETTER COLOR**

You see the possibilities for fruit improvement, through Greening Bud Selection, in the McIntosh orchard described on page 12—the possibilities of obtaining better and more uniform color.

Color and general appearance are becoming more and more important all the time. Improved color is one of the major objectives in orchard improvement. Greening Bud Selection gives it to you.

## **EARLIER BEARING**

Time is money—in the fruit growing business, more so than in practically any other business you can name. When you *plant a mistake*, it takes several years to find it out. Trees that lag in development—that make their growth slowly—reach their bearing age late—are expensive trees at any price. In production, it isn't "how much per tree" that counts, but "how much per acre."

*Greening's Super Selected Trees will average to bear earlier than ordinary fruit trees.*

## **UNIFORM RIPENING**

Any noticeable irregularity in blossoming and ripening complicates spraying, picking and marketing activities. A week or ten days variation in time can materially affect the salability and profit margin on your crop.

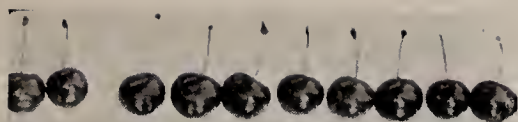
Greening Super Selected Trees represent the highest development of uniformly consistent performance in this respect.



Jonathan Apple Tree No. 1, Robert Anderson Orchards, Covert, Mich., parent for Greening Super-Selected strain. Produces largest Jonathan apples known. Production nearly trebles that of ordinary Jonathan trees growing in same orchard

**Greening Bud Selection is Only One of the Many Outstanding Features in Greening Super-Selected Fruit Trees**





Montmorency Cherries with normal length stems—11/16 inch to 24/16 inch



Montmorency Cherries with intermediate length stems—15/16 inch to 30/16 inch



Montmorency Cherries with long stems—24/16 inch to 48/16 inch

## The Key to Improved and Stabilized Cherry Varieties

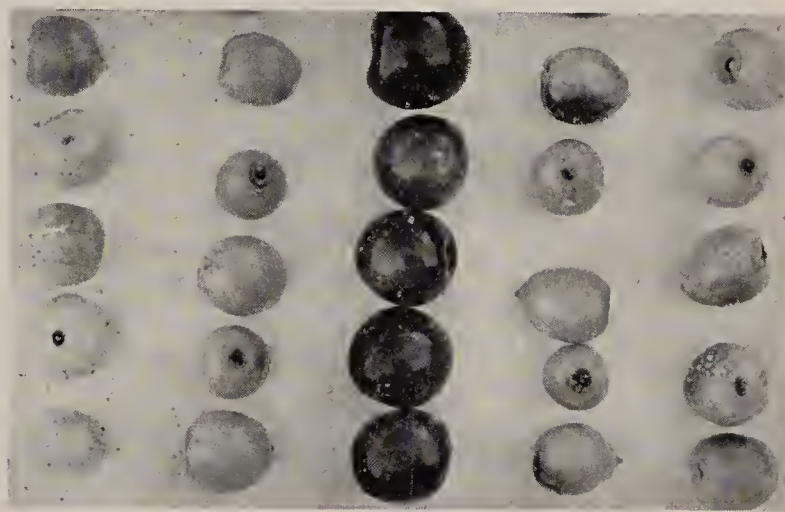
A transitional tree is one in which the characteristics of the fruit are mixed. A cherry tree of this type may be found in the orchard of Ralph Raider, Shelby, Mich. In this tree, the genetic factors blend into each other, and thus modify each other.

The three illustrations at the top of this page show the difference in stem length. In this one tree, there are 36 different stem lengths, ranging from 11/16 to 48/16 inches.

The Montmorency and late ripening Montmorency cherries which appear at the right show the instability with respect to ripening, which results when chimera cherry buds are used in propagation. This is typical of the ripening condition of an orchard of 500 trees, from which these cherries were taken. Note the deep pistil scars which are characteristic of the late ripening variation.

The illustration at the bottom of the page shows a transitional twig, bearing Montmorency and late ripening Montmorency cherries. Under such unsegregated conditions, uniformity in ripening, which is one of the main considerations in cherry selections, is impossible.

Greening Bud Selection segregates, separates and stabilizes those desirable qualities or characteristics which are sought for by all scientific fruit growers.



- 1
  - 2
  - 3
  - 4
  - 5
- (1) cherries from late ripening tree which is nearly segregated; (2) cherries from a large scaffold limb; (3) normal Montmorency cherries; (4) cherries from a small secondary branch; (5) green cherries picked from ripe ones in otherwise normal trees.



Montmorency and late ripening Montmorency Cherries on transitional twig.—Photo by Dr. V. R. Gardner, Director Michigan State College Experiment Stations



# One Of The Outstanding Features In The Greening Horticultural Exhibit

## An Actual Orchard Study That Reveals The Unfailing Principles of Bud Selection

A plat or chart of a certain McIntosh orchard is one of the outstanding features in the famous Greening exhibit which has opened the eyes of thousands of State Experiment Station officials, prominent fruit growers and leading horticulturists. It illustrates one of the main objectives in all of Greening's Bud Selection work, i. e., better color. Every grower knows the importance of good color, but unless he has made a close, scientific study of the subject, the laws of color remain a mystery to him.

The chart is based upon a block of McIntosh trees in the orchards of T. S. Smith, one of the biggest fruit growers in Michigan, whose orchards are located at Fennville.

The study covers a period of observation from 1924 to 1929. In September, 1924, Roy E. Gibson, our field observer, spent two days in this block of trees, making color observations. He found that 61 trees produced only striped fruit and that the remaining 47 trees produced solid red or blush fruit, with an occasional chimera or striped specimen here and there. Striped limb sports were located and marked in 5 trees, including the two pictured below.

The trees and limbs have checked consistently each year. Twenty-one transitional trees have developed limb sports ranging in size from very small branches to the large one shown as Limb No. 2, Tree No. 5, which comprises half the tree.

Limb No. 1, Tree No. 4 divides into branches "A" and "B." Branch "B" is a striped color sport. Branch "A" is transitional and is typical of other parts of the tree. In 5 years, beginning in 1924, this branch produced 109 solid red, 4 chimeras and 8 striped apples.

Color variations are not visible in the bark of apple twigs as they are in Green Bartlett and Yellow Fruited Bartlett pear twigs. In the case of apples, the color to be inherited by the buds is revealed only by the color of the apple borne.

The important point to remember is that all these McIntosh trees were "true to name." They were *sold and planted* as McIntosh trees and, in accordance with previously acceptable nursery standards, *were* McIntosh trees. Needless to say, they were *not* the stabilized strain of McIntosh trees made possible through Greening Bud Selection.



Branch "A" is transitional or mixed—in five years produced 109 solid red, 4 chimeras, and 8 striped apples



Limb No. 2 is a striped limb sport



# NOW IS THE TIME TO PLANT!

**Make Your Selections From Greening's Big Stocks!**  
**Buy Certified Quality!**

Again—Greening *leads*—in the ability to *deliver* as well as *grow* better trees. In the midst of a world-wide shortage in quality fruit trees, Greening offers one of the largest and finest selections in its history!

Right now when fruit prices are headed higher—when bigger markets and bigger profits are in store for fruit growers—the big Greening Nurseries come to you with the most complete assortment of varieties it has ever been our pleasure to catalog.

Now is the time to improve your orchard—to set out new trees—to do away with “drone” and “boarder” trees—trees that you feed and care for but that *don't feed and care for you*. Get rid of them. Plant in their places Greening Super Selected Fruit Trees—“Trees You Can Trust”—trees that have that “under the bark” ability that means—bigger crops—better crops—bigger profits!



One corner of mammoth Greening Nurseries, showing block of young Northern Spy trees. Note parent tree marker.

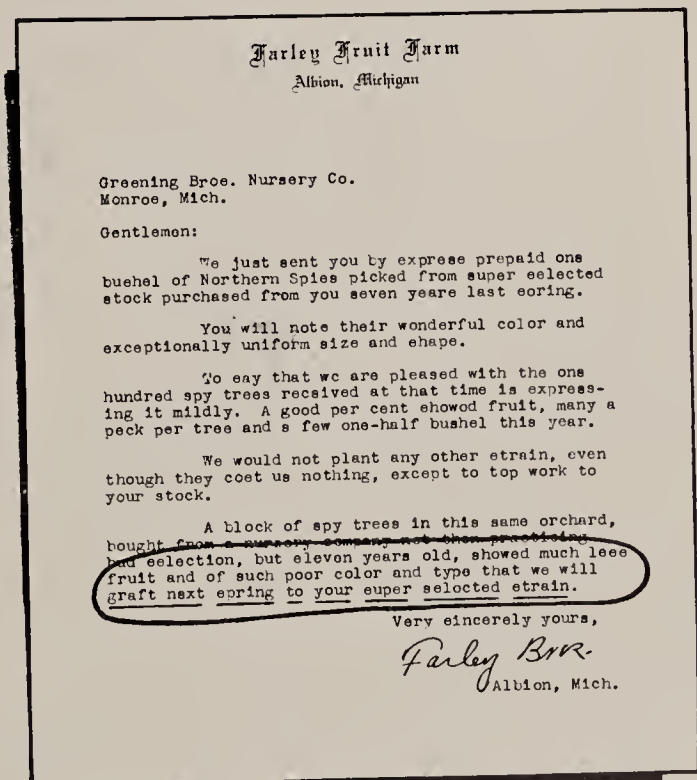
## A Regrafting Suggestion---Read What Farleys are Doing

Here is a letter from one of the best known and most successful orchardists in the country—Farley Brothers, Albion, Michigan.

Here is the statement of an experienced and highly successful fruit grower whose opinion and endorsement we value highly. If we were to write an entire book on the subject, we couldn't say more. That one sentence tells the whole story—“We will regraft *our* Northern Spy trees to *yours*.”

The Northern Spy trees already in the Farley orchards are the best obtainable under the old methods of tree propagation and tree selection, but they are *not good enough*. In the fruit tree business, as in all others—it is the survival of the fittest—the most advanced—the most efficient—the most profitable. Trees that were considered good trees years ago are second-raters now. Trees that paid out years ago are “drones” and “boarders” now. Trees that have been “weighed in the scales” and found wanting must go—must be replaced with trees of maximum productive ability.

Greening Super Selected Trees qualify. Buy them. Try them. Watch them grow. Keep close check on their early bearing and higher yields. When you do, you will quickly agree with thousands of other successful fruit growers that they represent the highest development of the art of fruit tree propagation!



**“We Will Regraft Our  
Northern Spies to Yours”**



# Thousands of Growers Have Seen the Greening Bud Selection Exhibit at Horticultural Shows



Michigan State Horticultural Society 59th Annual Meeting, Grand Rapids, Mich.

New York State Horticultural Society 76th Annual Meeting, Rochester, N. Y.



Michigan State Horticultural Society 60th Annual Meeting, Grand Rapids, Mich.





# The Crowning Achievement of 83 Years of "Trail Blazing" Service

Scientific Bud Selection as practiced in the propagation of Greening Super Selected Trees is a 23-year development of an 83-year-old company. Greening's experience goes back to 1850—11 years before the Civil War started—when John C. W. Greening, a professional gardener from Germany, settled on 30 acres of land in the fertile Monroe district. The accompanying picture was taken in one of his orchards, planted the afternoon of the day he first voted for President Lincoln.

Today, The Greening Nursery Company occupies 1500 acres of the finest stocked nursery land in the world, and is likewise the largest grower of fruit trees in the world.

Greening ideals, traditions, honesty of method and of product have been handed down through three generations of sons and grandsons. John C. W. Green-

ing was followed by Charles E. Greening and he, in turn, was followed by Benjamin J. Greening, now our President. Greening management has always been in the hands of men born and raised in the business—experienced, practical men, with a detailed working knowledge of the fruit grower's problems.

Every year, hundreds of visitors—old friends and first-time acquaintance and customers—visit Monroe and inspect our nurseries. When they leave, they carry with them something more than the memory of a business contact—a warm, friendly, satisfying, confidence-building feeling that they have met and talked with men who understand and appreciate their orchard problems—men who unquestionably have the knowledge and ability to help them solve those problems.

Come and see us. You will be given a warm welcome.



John C. W. Greening  
Founder of the Greening  
Nurseries



Four Generations of Greenings  
The late Mrs. John C. W. Greening; her son, the late Chas. E. Greening; Benjamin J. Greening, President of the present Greening Nursery Company and his son, Chas. B., Jr.



Greening's Mammoth storage cellar, newest, largest, most modern nursery storage cellar in America





# 49 Reasons Why Greening Super-Selected Trees Outsell All Others!

Read Every Testimonial--You'll Recognize Many of the Growers' Names

"I have planted only Greening Bud Selected Trees for 10 or 12 years. Five years ago we purchased some of your Anderson Strain Jonathan Apple trees. These trees have made remarkable thrifty growth. This year they bore about a bushel per tree of the largest and most beautiful Jonathans I have ever seen."

WESLEY S. HAWLEY  
Ludington, Mich.

"I'm sorry that at present we haven't room for a thousand Greening Super Selected South Havens."

A. W. GRIEST AND SON  
Flora Dale, Pa.

"I bought 300 Super Selected South Havens in 1929. Today I am growing the finest peaches on the market."

LOUIS FERRY  
Indianapolis, Ind.

"Super Selected Red Duchess trees received in fine condition. Thank you for such prompt shipment."

C. H. POLHEMUS  
Ulster Park, N. Y.

"Sold peaches from my Sun-Glos where other varieties were not wanted."

RAMSEY SMITH  
Hanging Rock, W. Va.

"Super Selected trees all growing fine."

MRS. EARL PETERS  
Gardners, Pa.

"Super Selected stock received from you very satisfactory."

R. M. TABER  
North Westport, Mass.

"Have always found your Super Selected stock superior."

B. O. MINER  
Dunkirk, N. Y.

"I am very well pleased with your Super Selected Gallia Beauty apple trees."

GEO. H. DRESSEL  
Dillonvale, Ohio



Farley Brothers,  
Albion, Mich.

"The Smith Strain Super Selected McIntosh trees all lived."

UNDERHILL BROS.  
Poughkeepsie, N. Y.

"Have lost only ten trees out of 1035 Super Selected Northern Spies and Steele's Red, and the summer was very dry."

RUSSELL M. HAINS  
C. Lowitz Orchards  
Cassopolis, Mich.



"All my Greening Super Selected trees grew splendidly."

J. H. GASSER  
Bethel, Conn.

"My neighbor planted some cheaper trees the same time I planted my Super Selected trees and I wish you could just take a look at his orchard and mine."

NICK KUYPEN  
Jenison, Mich.

"We just sent you by express one bushel of Northern Spies, picked from Greening Super Selected Trees purchased from you seven years ago last spring. You will note their wonderful color and exceptionally uniform size and shape."

FARLEY BROS.  
Albion, Mich.

"Super Selected trees purchased in 1929 are doing fine. Had an excellent crop of peaches last year."

RUSSELL C. BAKER  
Massillon, Ohio

"I like your Super Selected trees I got this spring more than any others I ever planted. All doing wonderful."

J. A. ELLIOTT  
Califon, N. J.

"Every tree in our recent order for Greening Super Selected stock was perfect."

W. H. CRYGERMAN  
Ross Orchards  
Rochester, Mich.

"Had remarkable success with your Super Selected trees, in spite of extremely dry spring and summer."

E. P. REIGLER  
Oriskany Falls, N. Y.

"Received Super Selected trees all in fine shape."

ALBERT RUFF  
Dansville, Mich.

"We had 12" below zero for about 12 hours but a full crop of Super Selected South Havens just the same."

A. GRANT FOX  
Leamington, Ontario

"My Super Selected Hales and Elbertas were the largest and sweetest around here."

ERNEST R. SCHMELING  
Bristol, Ind.

"Last year we marketed from 3-year-old Super Selected South Havens an average of between 3 and 4 bushels. Brought about 25% better price than Elberta. I am urging State and county officials to recommend this variety."

DR. J. G. HERCHELOTZ  
West Philadelphia, Pa.

"I have had wonderful success with your Super Selected South Havens."

FRED D. MILLER  
Cedar Springs, Mich.

"Have found your Sun-Glos grow very nice fruit of fine flavor. Our customers prefer them for canning."

RUSSELL I. CHANCE  
Wooster, Ohio

"I have had many wonderful comments on my orchard of Greening Super Selected trees."

EDWARD WIESE  
St. Joseph, Mich.

"I have about 600 Super Selected South Havens and wish I had more. They have gone through 20" below zero weather and set full crop."

A. J. ALLIE  
Olney, Ill.

"The Super Selected South Havens have double the peaches of any other trees in our orchard and at all times bring a better price."

W. G. COCHRAN  
South Haven, Mich.

"My Sun-Glos were the only variety to come through on a lean year. With a harvest of four or five thousand bushels of peaches a year, we want the best for our own family use, and we can nothing but Sun-Glo. As a marketable fruit, they are second to none."

J. F. CUDOHY  
Grand Rapids, Mich.

"I have 50 Sun-Glo peach trees that will break down if I don't prop them, although we haven't had any rain since May 15th."

LEWIS C. AIKINS  
Gillespie, Ill.

"We have planted thousands of your Super Selected trees, apple, pear, plum, cherry and peach. Your South Haven is our most profitable commercial peach variety—much harder and brings a higher price."

PERRY CHAMCOCK  
South Haven Fruit Growing Corp.  
South Haven, Mich.



E. E. Bushee  
South Haven, Mich.

"I am sure your Bud Selection work is of priceless value to the fruit grower."

E. E. BUSHEE  
South Haven, Mich.

"Your Sun-Glo is the best peach I ever ate. Anyone in doubt, just come to my orchard and see for himself."

R. J. MURPHY  
Grand Rapids, Mich.

"Have found Greening Sun-Glos make remarkable growth and are very consistent croppers. Have to thin them every year when other varieties have not borne so heavily."

C. HOWARD FISHER  
Queenston, Ontario

"Every fruit tree I ever bought from Greening has grown. I have found that it pays to buy Greening Super Selected Trees."

STANLEY KUREK  
Marne, Mich.

"I have never set out as fine peach trees as the Hale Havens grow by you."

C. L. REEO  
West Newbury, Mass.

"After using stock from nurseries in New York, Ohio, Illinois, Missouri and Michigan, I find that Greening Super Selected Trees grow better and bear best."

H. M. PECK  
Grand Rapids, Mich.

"The Greening Super Selected Trees are big, thrifty and uniform. The others are scrubby, uneven and one-sided. I never saw or heard of a peach bearing as young as your South Haven, and the fruit is excellent."

PETER TERPSTRA  
Grand Rapids, Mich.

"Your Sun-Glo peach trees produced a large crop last year. Got four bushels from one tree set out three years. Very large and fine quality."

F. A. RICHARDS  
Pontiac, Ill.

"My Super Selected South Havens have made more money than my Elbertas. On the Benton Harbor market last year, they sold for the same money. They have come through several seasons with a full crop when other peach trees had nothing. Wouldn't think of setting out an orchard without a quantity of Greening South Havens."

IVAL B. WADE  
Fennville, Mich.

"The Super Selected South Haven is a money-maker and we appreciate the contribution made by Greening in introducing this newest peach of recognized commercial value. It is harder than other varieties. Following a sub-zero winter, we have a good showing of South Havens with no fruit on other kinds, and prices are always high on off-years. We are planting all suitable land to Greening Super Selected South Havens just as fast as possible—650 in 1932; 1500 in 1933; and another thousand next spring."

H. M. WELDER AND SONS  
Fennville, Mich.

"In 1921 we set our first Sun-Glo peach trees. By the third year, these trees were bearing fruit and have never since failed to produce a profitable crop, regardless of weather."

PHILIP KLENK AND SONS  
Sparta, Mich.

"I am sorry that I did not set out more of your Sun-Glos years ago. We have 120 acres that bear a full crop when others fail."

ED UMLOR AND SONS  
Conklin, Mich.

"Your Sun-Glos were larger at the end of the first season than trees purchased elsewhere that had been out two and three years. Best investment I could have made. I only hope that peach growers may be brought to realize the superiority of this peach in time to substitute it for other less valuable varieties."

WALTER OSBORNE  
Portsmouth, Ohio

"I produced perfect Hale peaches last year from your Super Selected stock that weighed 16 ounces each."

L. T. CLARK  
Detroit, Mich.

"It will be a pleasure to recommend your Super Selected stock to people in this locality."

WM. H. McDEVITT  
Apple Crest Farm Co.,  
Hampton Falls, N. H.

"All the Sun-Glos we purchased from you last spring are doing fine. No replacements needed."

THAD G. HELM  
Committee on Masonic Homes  
Elizabethtown, Pa.

"Your Super Selected stock is the kind one likes to plant."

ARTHUR E. HENRY  
Armonk, N. Y.

"The Super Selected apple trees received from you show their quality—very large and healthy looking."

VIRGIL R. EMERSON  
Cynthiana, Ind.



H. A. Keister  
Bangor, Mich.

"The apples on my Super-Selected Red Duchess trees are a perfect red, while the rest of our Duchess apples are striped."

H. A. KEISTER  
Bangor, Mich.

Every Mail Brings Additional Enthusiastic Endorsement of  
Greening Methods---Greening Merchandise---Greening Service



# World's Most Famous Northern Spy



## Came Into Bearing at Six Years

Late bearing being an outstanding weakness of the Northern Spy variety, Greening Bud Selection efforts were concentrated on getting a strain that would bear young and abundantly. The famous parent tree pictured on this page (Greening Super-Selected Northern Spy, Farley Bros. strain) came into bearing at about six years of age and produced a full crop of nearly twelve bushels when only nine years old. (Further description in varieties section.)

# The Equally Famous Greening Baldwin

## Bears Annually

Bore 68 bushels of apples in the first five years of its bearing. This Greening Super-Selected strain Baldwin Tree No. 2, parent tree from which buds are taken for this variety, is in the orchard of A. G. Spencer, Kibbie, Mich. Set out in 1908. Began bearing in 1917. Has borne full crops annually since then. (Further description in varieties section.)





# GREENING'S APPLES

Commercial varieties have become profitable because they possess money-making qualities. One of the major objects of Bud Selection is to retain the good attributes and prevent deterioration caused by cutting buds from transitional trees mixed with undesirable variations. All varieties are likely to deteriorate and the necessity of knowing that propagating buds are taken from sources of known desirability is of the greatest importance.

In the description of varieties to follow, the name following the variety name in each case indicates the strain and is the name of the orchard in which the parent tree is located, from which propagating buds were taken.

## SUMMER APPLES

**JOYCE** (Tree #629 Ohio State Experiment Station). This is a seedling apple originating at the Canadian Experiment Station. Prolific, ripens the latter part of August and has much merit. An outstanding red Summer apple.

**MELBA** (Tree #633 Ohio State Experiment Station). This is a seedling apple originating at the Canadian Experiment Station. Ripens about mid-August and is of practically the same quality and appearance of the McIntosh. This apple is a distinct contribution as an early apple of high quality, particularly where roadside markets abound.

**RED ASTRACHAN** (Springer). This strain of Red Astrachan is a red selection. A splendid red Summer apple, of sub-acid flavor. Beautiful in color and shape. Flesh is fine-grained, crisp, tender and juicy. Good grower, coming into bearing rather young. Reliable cropper. An excellent variety for home use or local market. Season, late July to September.

**SWEET BOUGH** (Luplow). This selection maintains the original standard of quality of this variety. Flesh tender, of honey sweetness, excellent quality. Fruit large and handsome, smooth, sometimes faintly blushed. The best Summer sweet apple for home orchard or local trade. Season, August and early September.

**YELLOW TRANSPARENT** (Miller). The outstanding yellow Summer apple. The tall growing growth type is preferred in this variety. Our parent tree of this type habitually bears good crops of large fruit annually. Low-spreading trees of equal age and size bear only every other year and the size of the fruit is greatly reduced. Fruit uniform in shape and size. Skin smooth, waxy, pale greenish yellow changing to an attractive yellowish white. Flesh fine grained, crisp, tender, juicy, sub-acid with a very pleasant flavor. Season late July and August.

## AUTUMN APPLES

**CHENANGO**, Scarlet (Ballard). This improved strain gives a beautiful color to a heretofore unattractively colored variety. In its season, this new colored Chenango is an outstanding apple in taste, odor and appearance. Size, medium to large; color, scarlet as the name implies. An early and regular bearer. Very profitable apple to grow for local and special market. Quality very good. Season, latter part of August and September.

**DUCHESS** (Oldenberg). See Red Duchess.

**MAIDEN BLUSH** (Wark #2). A true type Maiden Blush. Color, beautiful pale lemon yellow with crimson cheek. Comes into bearing young and is a reliable cropper. Fruit medium to above average size, often very large. Uniform in size and shape. Crisp, tender, very juicy, and sub-acid in flavor. Excellent in quality. Season, September to November.

**RAMBO** (Farnsworth). Typical old fashioned type Rambo fully up to the standards of the olden days. In this selection we have maintained the original true characteristics of this variety. The fruit is medium to large and uniform in size and shape. Color, pale greenish yellow mottled with red, striped with carmine. The flesh is firm, fine, very crisp, tender, juicy and mildly sub-acid. Season, October and November. Its season in chemical cold storage extends to February.

**RED DUCHESS** (Kiester). This is an improved color strain. The color type is solid red with indistinct stripes. The added color makes it an unusually attractive fruit. Profitable commercial variety as well as good home use variety. Excellent culinary qualities. Tree unusually hardy, vigorous and a very reliable cropper. The fruit is very uniform in size and quality. Flesh, yellow, firm, slightly sub-acid and aromatic. Season, August to September.

## WINTER APPLES

**BALDWIN**, Scarlet (Ruall). The fruit of this parent tree is very highly colored and much brighter in appearance than the ordinary Baldwin. The blossoms have pink stamens and pistils. The parent tree of this strain is spreading in growth habit, with drooping branches, indicating heavy production. Where a highly colored Baldwin is desired, this strain is unsurpassed. The fruit is large, uniform in size and the skin is tough, smooth and very attractive. The flesh is firm, crisp and rather tender and juicy. Agreeably sub-acid. Quality is very good and the season extends from November to March or April; to May or later in cold storage.

**BALDWIN** (Spencer #2). This remarkable strain of the Baldwin apple is early and annual bearing. The parent tree is low spreading, pyramidal in shape. It produced twelve bushels of fruit when only seven years old, followed by annual crops. The total yield for the next ten years was one hundred and fifty bushels. The size of the fruit is large and the color typical of the variety. A check tree growing in the same orchard with the parent tree and a typical type of ordinary Baldwin is a tall growing and round top tree. It came into production later than the parent tree, is a bi-annual bearer and during the same years produced only eighty bushels of apples. It is very obvious that it would be folly to plant ordinary Baldwin when such trees as our Spencer Strain are available. Earlier, annual bearing and increased production resulting in greater profits. Season and quality of fruit same as the Ruall Strain described above.

**CANADA RED**. See Steele's Red.

**CORTLAND** (Lyman). Cortland is an improved late McIntosh. The fruits of the two varieties are similar, but those of Cortland are more oblate, average larger, and are more uniform in size; they have more color and the red is lighter and brighter and the stripings and splashes are laid on differently; the taste of Cortland can hardly be distinguished from that of McIntosh; the flesh is firmer but just as juicy; the season is several weeks later; the apples do not drop so readily and ship better. The buds for this Lyman Strain Cortland were taken from top-grafted trees. The scions grew very vigorously and bore when young.

**DELICIOUS**. See Solid Red Delicious.

**FAMEUSE** (SNOW) (Spencer). This Super-Selected Strain of Fameuse also known as Snow is a red striped color type which carries more color than ordinary Snow apples. Combined with this is extra size. This is the largest Snow apple that has ever been produced. We regard this as an ideal type of striped Fameuse. The fruit is beautiful in appearance, of medium size. The skin is thin, tender, smooth and very attractive. The flesh is snow white, very tender, juicy, sub-acid. It is considered a very good dessert apple but not recommended for culinary purposes. The fruit hangs well to the tree. Season, October to mid-Winter. See also *Solid Red Snow*.

**GALLIA BEAUTY** (Ohio #16). A superior color variation from the Rome Beauty. Fruit has the characteristic shape and quality of the original type. The color type is solid red without stripes, and is unusually attractive. Our propagating buds came from a progeny test tree growing at the Ohio State Experiment Station, Wooster, Ohio. This variety is far more attractive, therefore, more salable and should supersede Rome Beauty in new plantings. The fruit is large, smooth, handsome, uniform in size and shape. Thick skinned, therefore, ships and keeps well. Thrives best in Ohio and Indiana, Southern Michigan and Southern New York. The tree is very vigorous, coming into bearing early with a heavy annual crop. Because of its long stems and flexible branches, the fruit remains well on the tree during high winds. Season, November to February.

**GREENING**. See Rhode Island Greening and Northwestern Greening.

**GRIMES GOLDEN** (Joehrendt). This selection was made because of the tremendous yields and the large size of the fruit produced by the parent tree. In spite of over-loads, the size has always been above the average for the variety. The average Grimes Golden weighs  $4\frac{1}{2}$  ounces and measures  $2\frac{5}{8}$  inches. Fruit from this Joehrendt parent tree averages  $6\frac{1}{2}$  ounces and measures  $3\frac{1}{2}$  inches in diameter. It also bears much larger annual crops than the ordinary Grimes Golden and it is by far the finest and most profitable that has ever been introduced. The color of the fruit is a deep yellow, the flesh is yellow, very firm, tender, crisp, sub-acid and moderately juicy. It is an excellent variety for either dessert or culinary purposes. One of the best pure yellow Winter apples and fine for the commercial as well as the home orchard. We can supply these trees in either top-grafted or low budded. Season, November to February.



## Greening's Apples—Continued

✧ **JONATHAN** (Anderson #1). The characteristics of the parent tree of this strain is early bearing and heavy annual production of exceptionally large sized fruit. A check tree growing in the same orchard and a typical ordinary Jonathan tree, of equal size and growing under identical conditions and care, took two years longer to come into bearing. This check tree has produced less than one half of the fruit that the parent tree has and the fruit has always been small which is characteristic of the Jonathan variety. Over the same period the parent tree produced  $38\frac{1}{4}$  bushels of fruit, the average size of which was  $6\frac{5}{8}$  ounces, whereas the check tree produced but  $14\frac{1}{5}$  bushels and the average size being 4.72 ounces. We have corrected the only fault of the Jonathan thereby increasing the profits of those who plant it. The color of the fruit is an attractive bright red, the flesh is white, firm, crisp, tender, juicy, aromatic and sprightly sub-acid; in all, a very beautiful apple, highly flavored, either for dessert or culinary uses. One of the most desirable varieties for the fancy trade at holiday season.

**KING.** See Tompkins' King.

**McINTOSH.** See Solid Red McIntosh.

✧ **NORTHERN SPY** (Farley #9). One of our outstanding achievements in Bud Selection. This remarkable parent tree is a combination of the following factors which we wish to reproduce in Northern Spy orchards; a strong vigorous tree, early bearing, heavy annual production, large size in fruit and an attractive typical striped color type. This parent tree produced a full crop of nearly twelve bushels when only nine years old and a total of one hundred forty-one bushels by the end of the sixteenth season. The fact that this tree produced twelve bushels when only nine years old, shows that it must have come into bearing at not more than six years after planting for a Spy tree always bears a few apples the first year and continues to increase in production each year. This record speaks for itself. It requires no added comments. The fruit is large and extremely attractive. Color, bright red with indistinct stripings. Flesh, very juicy, crisp and tender and most excellent for either dessert or culinary uses. Season, November to March. See also *Solid Red Spy*.

✧ **NORTHWESTERN GREENING** (Smith #5). Our Tree Performance Records show the parent of this variety to be the producer of the greatest number of bushels of any tree under observation. The production of No. 1 grade of fruit is high and the cost per bushel is low. Production records on this variety for seven years total  $130\frac{1}{2}$  bushels with the average size of the fruit weighing  $10\frac{1}{3}$  ounces. Color, clear pale yellow sometimes faintly blushed. Flesh is firm, juicy, slightly aromatic, mild sub-acid. The quality is very good. The tree grows with rapidity and vigor and is a prolific producer. Tree is extremely hardy making it an important variety for fruit growing interests in northern sections of the Country. Season, January to June.

**RHODE ISLAND GREENING** (Bushee). The parent tree of this strain produced annual crops beginning the second year after planting. Coupled with the unusually early bearing habit there is a very vigorous tree growth. The fruit is typical of the variety, being one of our finest green apples. The fruit is very large, fine-grained, uniform in shape and size. For culinary purposes this variety is unsurpassed. The flesh is tender, very juicy and the flavor is rich and pleasing. Season, December to March.

**ROME BEAUTY.** See Gallia Beauty, a better improved variety.

✓ **SOLID RED DELICIOUS.** This variety is like Delicious in every respect excepting that it has added color. As the name implies this is a solid red, highly colored Delicious. It is recommended especially for locations where Delicious does not have sufficient color. The tree is hardy, healthy, vigorous and bears regular annual crops. Flesh is fine-grained, crisp, melting and juicy. Quality is very good and the season is November to March.

**SOLID RED McINTOSH** (Farley #5). This Super-Selected Solid Red McIntosh is the answer to the desire of fruit growers for this popular variety in its most attractive form. Combined with added color is good production and uniformity of shape. The added attractiveness we have given this now popular variety means increased profits for the orchardist. The fruit is large, highly aromatic. Color is a solid brilliant crimson. Quality is the very best. Season, November to February.

**SOLID RED McINTOSH** (Smith). This selection is another solid red McIntosh selection. Over one half of the trees in this orchard produce only striped apples. Propagating buds for this strain were taken from the other trees in which the more desirable red type predominated. In other respects this is a true type McIntosh.

✧ **SOLID RED SNOW** (Farley #1). A solid red type of Snow, also known as Fameuse, which is completely segregated. The original parent tree produces only solid red fruits. There is no indication of striping whatsoever. This Super-Selected Strain of Red Snow can be planted with confidence where ordinary Snows will not color satisfactorily. This is a very well and favorably known dessert apple, beautiful in appearance. The skin is thin, tender, smooth and extremely attractive. The flesh is snow-white, very tender, juicy, sub-acid and aromatic. Season, October to mid-Winter.

**SOLID RED SPY** (Stuart). The parent tree was in full bearing during the twelfth year at which our records started on this strain. This fact proves that this particular strain came into bearing very young. As the name signifies, it is a solid red type. This strain colors early in the season and has an abundance of color, making it preferable for locations where Northern Spys do not color well. It is a highly attractive apple and will create a strong demand on any market. In other respects, this is a true type Northern Spy.

✧ **SOLID RED STARK** (Spencer). This is another solid red selection which gives added beauty and commercial value to an already popular variety. The fruit is large, smooth, well shaped, and keeps very well. The flesh is slightly coarse, juicy, tender, crisp, mildly sub-acid. A reliable cropper and very productive. It succeeds in regions where Baldwins do well and also beyond the ranges of profitable cultivation of Baldwins. Season, January to May.

**STAYMAN'S WINESAP** (Coffing). This strain is a selection from the orchard of Coffing Brothers in Indiana, who are reputed to grow the finest Stayman Winesaps in the Country. The tree is very productive, produces fruit uniform in size and of splendid quality. The color is greenish yellow completely covered with dull mixed red and indistinctly splashed with carmine, red prevailing. Flesh slightly greenish, tinged with yellow, moderately fine-grained, tender, moderately crisp, juicy, aromatic and mildly sub-acid. Tree is a vigorous grower coming into bearing early and a reliable cropper. Season, December to May.

**STEELE'S RED—TOP-GRAFTED.** (Sometimes called Canada Red or Red Canada). A long keeping market apple with excellent good color. This variety is unsurpassed, brings one to two dollars per barrel more than any other apple. The fruit is well formed, very fine grained, juicy, aromatic and agreeably sub-acid. The size of fruit medium to large, shapely, uniform cone-shaped. In color a beautiful deep red, striped with deeper red on a background of yellow. Sometimes conspicuously marked with gray colored dots. Flesh whitish with yellow or greenish tints, firm, crisp, rather fine grained, agreeable sub-acid flavor. The quality is of the best—very valuable for commercial purposes. The only drawback to this variety has been its slow growth but by the Greening method of top-grafting it in the nursery, on a hardy, fast growing stem and French crab root, we have completely overcome the slow growing characteristics. By top-grafting it will come into bearing as quickly as any good standard variety of apples. Fruit growers who have planted it have been able to reap large profits and our demand for this type of tree is greatly increasing.

**TOMPKIN'S KING** (Trumbull). This strain is a selection from an orchard in which this variety grows to perfection. This is the highest type, most desirable Tompkins' King strain that it has been possible to produce. Fruit is large to very large, uniform in size and shape. Color yellow mottled and washed with orange-red, often shaded to lively red, striped and splashed with bright carmine. The dots are rather numerous, conspicuously white or russet, yellowish, coarse flesh, crisp and tender. Aromatic, juicy and sub-acid. Quality very good to best. Tree rather slow about coming into bearing but once mature, becomes a regular bearer, yielding light to heavy crops biennially. Valuable for home and commercial use. Season, November to March.

**TURLEY** (Turley Winesap) (Coffing Bros.). The Turley is gradually winning its way solely on its merits. The variety originated in Indiana and is much esteemed by the growers of that state as a commercial apple. The tree is vigorous and bears fruit early—in 5 or 6 years from date of planting. The fruit is very red and inclined to be large. Season just before Stayman's Winesap.

**WAGENER** (Wark). This selection is typical of the variety and fully up to original standards. Comes into bearing earlier than most varieties. Tree dwarf to medium size in growth. Valuable variety as a filler in commercial orchards. Fruit medium to rather large, color pinkish red, striped with carmine over a pale yellow background. Prevailing color light red, flesh white, fine grained, tender and very juicy, sub-acid. Quality is very good. Season, October to February.



## Greening's Apples—Continued

**WEALTHY** (Nye #2). The parent tree of this strain maintains a high standard for the variety. It began to bear at an early age and produced good annual crops of large, uniform apples with normal color for Wealthy. In Wealthy orchards, undesirable variations affecting production, uniformity of shape and size and also undercolored fruits are very common. Fruit large size, roundish. Skin is smooth, marked with dark red. Flesh, white, tender, juicy and sub-acid. This is one of the finest varieties of its season and is especially good for commercial purposes as it comes into bearing early. Very profitable as a market apple on account of its handsome appearance and good flavor. Season, November to January.

**WINTER BANANA.** This variety was introduced by us in 1890 and won highest honorable mention, American Pomological Society Fruit Exhibition at Philadelphia. Fruit large to very large. Skin smooth, moderately thick, waxy, bright pale yellow, often with a blush, which in well colored specimens deepens to a dark pinkish red. Dots numerous, whitish and submerged or with fine russet effect. Prevailing effect yellow with a pretty contrasting blush. Flesh whitish tinged with pale yellow, moderately firm, a little coarse, somewhat crisp, tender, juicy, mild, sub-acid, distinctly aromatic. Good to very good. Tree a vigorous grower and a remarkably early bearer, yielding moderate to heavy crop. One of the most beautiful and delicious apples that has ever been developed. It is in a class distinctly its own. Season, mid-November to May.

**WOLF RIVER** (Wark #4). This selection represents a high average with heavy production of very large apples, one of the largest apples grown. Smooth yellowish white, splashed with bright red. Flesh yellowish white, coarse, tender. Flavor medium. Exceedingly valuable as a baking apple. Grown especially for the restaurant market. Tree very vigorous and in this selection we offer trees capable of heavy production whereas the ordinary Wolf Rivers are considered only fairly productive. Season, November to January.

### CRAB APPLES

Crab apples succeed equally well in all sections and are very valuable for preserving, jelly and cider. A valuable market fruit.

**HYSLOP** (Smith #1). This parent tree combines in one the money-making qualities of the variety with improved color; vigorous, early bearing, heavy annual production, large size fruit and a solid red color type. Only twenty feet away from this parent tree stands a tree of the striped type. Nine years records of the parent tree show a production of  $59\frac{3}{4}$  bushels; the fruit averaging  $1\frac{7}{8}$  ounces. These figures need no further comment as to the superiority of this high type Super-Selected Strain of Hyslop Crab. Season, September to October.

**TRANSCENDENT** (Hunt). This is a high type selection of a popular variety and fully up to the original standards. Fruit medium to large. Color, brownish yellow with blushes of carmine. Flesh firm and crisp, yellowish, fine grained, very juicy, acid. Tree is a hardy and vigorous grower. Comes into bearing early. Immensely productive. Season, September to October.

### DWARF APPLES

The Dwarf Apples interest many where space is limited, such as for back-yard planting. They fruit early and bear at an astonishing rate. May be planted as closely as 6 ft. apart each way. We can supply the following varieties only. Those lettered W are Winter and S are Summer varieties.

Baldwin (W)	Red Astrachan (S)
Fameuse (W)	Sweet Bough (S)
Jonathan (W)	Wealthy (W)
McIntosh (W)	Winter Banana (W)
Rhode Island Greening (W)	Yellow Transparent (S)

### Number of Apple Trees Required Per Acre

Distance Apart	Number per Acre
40 x 40 ft. ....	27
36 x 36 ft. ....	33
20 x 20 ft. ....	108



Parent Tree—Greening Super-Selected Solid Red McIntosh, Farley Bros. Orchards, Albion, Mich. The most nearly perfect segregated Solid Red McIntosh under our observation





# Another Famous Greening Parent Tree

## Montmorency Cherry (Fernwood Strain) Tree No. 3

A direct descendant of two trees in the orchard of W. W. Farnsworth, Waterville, Ohio. Fruit is 15 to 20 per cent larger than ordinary Montmorency. (further description in varieties section).



# GREENING'S CHERRIES

The cherry, like the grape, succeeds where many other fruits fail. It doesn't ask for favorite spots and bears almost annually. Among the many hundreds of varieties cultivated in America, those given here are the most desirable in many respects.

## SOUR CHERRIES

**DYEHOUSE.** A very early and sure bearer; ripens a week before Richmond and quite as productive and hardy. Color red. June.

**EARLY RICHMOND** (Kiestler). Medium size; dark red, melting, juicy, sprightly acid flavor. This is one of the most valuable and popular of the sour cherries. It is unsurpassed for cooking purposes. Tree a good grower with roundish, spreading head, and is extremely productive. The most hardy of all varieties, uninjured by the coldest winters. Ripens through June.

**ENGLISH MORELLO** (Tucker). Medium to large, blackish red, rich, acid, juicy and good; very productive; tree a moderate grower. August.

**MAY DUKE** (Scherer). Large, red, juicy and rich; an old, excellent variety; vigorous and productive. Middle of June.

**MONTMORENCY** (Fernwood). The Montmorency cherry variety is transitional. Variations are found in every one of its important characteristics including type and growth of trees, twigs and leaves, length of stems, production, time of ripening and size as well as shape and color of fruits. Through bud selection we are able to bring out the best in the variety. Greenings Super-Selected Montmorency Fernwood Strain is the leading commercial sour cherry and it has proved its value in the many orchards in which it is now in production. Leading growers everywhere are demanding our Fernwood Strain Montmorency. The trees are vigorous and strong growing, making a large tree quickly, thus coming into profitable production at an early age. The trees are more uniform in shape and size, produce more fruit, which is more uniform in ripening and from 15 to 20% larger in size than fruit from trees of ordinary Montmorency which were produced by the old propagation methods. Season end of June.

**MONTMORENCY** (Rouse). This is our largest Montmorency cherry, producing sour cherries of exceptional size. Trees are spreading and comparatively slow growing when young but make a large healthy tree when mature. Season, end of June.

**RICHMORENCY** (Stickney). This is an early ripening Montmorency. It is a true Montmorency type only that the fruit ripens a week or more earlier than the standard Montmorency. It ripens at approximately the same time as the Early Richmond. The parent tree is low spreading in growth, produces heavy crops, and the size of the fruit is large. The fact that this strain ripens early is a decided advantage as thousands of Montmorency cherry trees are mixed with late-ripening factors causing cherries in otherwise normal trees to be green at picking time.

## SWEET CHERRIES

Sweet cherry trees supplied the public by many nurseries have not been true to name. We established this fact by checking orchards in the sweet cherry belt of Northern Michigan, and consulted experienced growers, who cooperated with us in making our selections. The only variation in sweet cherries of commercial importance, is unproductive strains. We selected buds for the production of our various strains of sweet cherry trees from parent trees producing heavy crops. In the variety descriptions to follow, the name in parentheses, immediately following the variety name, is the name of the orchard in which the parent tree is located, from which propagating buds were taken for the production of these trees.

**BING** (Rogers). One of the best black cherries in existence. It is large, firm and delicious and a good shipper. Tree hardy and upright grower. Middle of June.

**GOV. WOOD** (Rider). Very large, rich, light yellow with red cheek. Juicy and sweet. One of the best. Last of June.

**NAPOLÉON** (Manistee). Very large, pale yellow with bright red cheek, very firm, juicy and sweet. Vigorous grower and very productive. One of the best. First of July.

**NELSON** (Rogers). Tree a strong, upright grower and quite hardy for a sweet cherry. Fruit large and slightly conical, quite firm and sweet. It ripens mid-season to late and is an excellent shipping sort. Trees are unusually productive for the class.

**PAUL ROSE** (A White Schmidt's Bigarreau). Originated from a sport limb in the orchard of the late Paul Rose, the pioneer sweet cherry grower of Michigan. It is a white cherry and of large size, tender, juicy, with a fine rich flavor, ripening in July. Doctor V. R. Gardner of the Michigan State College considers it of great commercial value.

**SCHMIDT'S BIGARREAU** (Rogers). Remarkably hardy and productive. Fruit grows in clusters and is of the largest size. Skin deep black, flesh dark, tender, juicy, with a fine, rich flavor. Stone small. July.

**TARTARIAN** (Black Tartarian). (Lewis). Very large, bright purplish black, juicy, very rich, excellent flavor. Tree a vigorous grower and productive. Last of June or early July.

**WINDSOR** (Crystal Lake). New seedling originated at Windsor, Canada. Fruit large and liver colored, quite distinctive; flesh remarkably firm and of fine quality. Tree hardy and very prolific. The most valuable late variety for market or family use. July.

**YELLOW SPANISH** (Rose). Fruit very large, heart-shaped. Color pale, waxen yellow with handsome light red cheek to sun. Flesh firm with fine rich flavor. Season medium. A very popular variety.

## Number of Cherry Trees Required Per Acre

Distance Apart	No. per Acre
30 x 30 ft. (Sweet Cherries) .....	48
20 x 20 ft. (Sour Cherries) .....	108



## THREE INTERESTING CHERRY COMPARISONS

The illustration above shows twigs taken from three cherry trees. The twig at the top was taken from the Montmorency (Fernwood Strain) Tree No. 3, parent tree of Greening Super-Selected Montmorency trees.

The twig in the middle was taken from a Montmorency check tree, which represents an average, ordinary Montmorency, and the twig at the bottom, from a barren Montmorency tree.

All three twigs are off Montmorency trees, but only one is off THE MONTMORENCY TREE THAT SUPPLIES BUDS FOR PROPAGATING GREENING SUPER-SELECTED MONTMORENCY TREES





# **A History - Making Peach Tree**

## **Greening Super-Selected Sun-Glo**

This remarkable peach tree, growing in the orchard of A. G. Spencer, Kibbie, Michigan, is the parent tree for Greening Sun-Glo trees. Unusually hardy. Large, well shaped, beautifully colored fruit, with firm, yellow meat, free from red pit stains—and with a firm skin that makes it a good shipper. Unexcelled for canning. Ripens approximately 18 days before Elberta.

(further description in varieties section)



# GREENING'S PEACHES

If the apple is the King of fruits, then most assuredly the peach is the Queen. In appearance, no other fruit is so tempting. If all the references and comparisons to its beauty were compiled they would fill a large volume. It is a popular fruit the world over and, next to the apple, has the widest variety of uses.

To those who are of the opinion that the peach is a short lived, tender tree, we are pleased to state that it is now grown successfully in almost every state of the Union. Of course good judgment must be exercised as to the varieties chosen for a given section of the country; bearing in mind soil, climate and other conditions. Upon these points we have ample information that is at your command without charge.

We are the largest growers of peach trees in the country, as our locality is considered the finest to be found throughout the United States for the growing of peach trees. Let us summarize for you a few of the good points of a peach orchard.

The quickest of all orchard trees to bear profitable crops, as they come into bearing in three years.

More trees can be planted to the acre than permanent varieties of apples.

Peaches may be used as fillers in apple orchards until the apples come into bearing.

During the last three years many peach orchards have been neglected resulting in a scarcity of healthy, vigorous, bearing trees at the present time, with an increasing demand for the fruit, according to the best authorities.

The yield per acre often exceeds 300 bushels during a favorable season.

Red Suture as well as other virus diseases, is evident in many peach orchards of this country. As a result thousands of trees that were in full bearing have been cut out of orchards. By our Bud Selection method we can assure our customers of receiving peach trees free from virus diseases.

In the descriptions to follow, the name in parentheses immediately following the variety name, is the name of the orchard from which buds were taken from the parent tree for the propagation of these trees.

## VARIETIES

**ARP BEAUTY.** (South Haven Experiment Station). The ARP Beauty peach was originated by G. P. Orr, ARP, Texas, about 1897. The variety has been tested in a number of Experiment Stations, including Michigan where it ranks as the earliest good yellow peach. The fruit is semi-cling and medium to large in size. The color is bright, attractive red and yellow. The flesh is clear yellow in color, fine grained and firm for an early peach. Time of ripening is one week before Admiral Dewey or five or six weeks before Elberta. The quality is good, especially for slicing and the variety is recommended for roadside stand, local and truck trade. Trees are hardy and very productive when inter-planted. Blossoms are self-fertile.

**BANNER.** (Leisering). Introduced by us in 1899 and still remains the greatest peach in its season. Originated at Woodslee, Ontario, Canada. Fruit large, round and very handsome. Tree very hardy and an early and abundant bearer, and a strong vigorous grower. Color deep yellow with a rich crimson bloom. Flesh golden yellow from pit to skin. Pit small and perfectly free. Its shipping qualities are unsurpassed. Season of ripening ten days after Elberta. It is very hardy and dependable but should be fertilized, pruned and thinned. An excellent commercial variety and a big money-maker when other varieties do not bear. Has won ten first premiums at Canadian Agricultural Fairs. Unsurpassed in richness of flavor.

**BELLE OF GEORGIA.** Very large, skin white with red cheek, flesh white, firm and of excellent flavor. Tree a rapid grower, very prolific. Ripens with Early Crawford.

**CARMAN.** (South Haven Experiment Station). Large, resembling Elberta in shape. Color, creamy white with deep blush. Skin very tough, flesh tender, fine flavor and quite juicy. One of the hardest in bud, quality very good. Ripens just before Champion. Very nearly free-stone.

**CHAMPION.** (Warner #1). A white-fleshed peach, very excellent in quality; attractive fruit; large. Creamy white, tender flesh, very pleasant flavor, having a peculiar honey taste. Stone semi-free to free. Ripens with St. John; three weeks before Elberta.

**DEWEY.** (Ninke #5). This selection represents a very high standard for the variety. Perhaps the best commercial variety of any of the very early ones. Fruit medium size, round oblate in shape. Color deep orange, blushed with dark red—(very pubescent). Yellow, tender, juicy, flesh melting, sweet but sprightly and good in quality. Stone semi-free to free. Valuable for early market.

**EARLY CRAWFORD** (Spencer). A wonderful peach, for the home orchard because of its high quality and very beautiful appearance. A yellow free-stone peach, very large, golden yellow blushed with dark red. Ripens two weeks ahead of Elberta.

**EARLY ELBERTA** (Wahlers). Ripens about a week earlier than Elberta; otherwise the same. Quality of fruit somewhat better.

**ELBERTA** (Barden #2). This is the aristocrat of Elbertas and you will agree when you see the beauty and perfection of this peach. It is a true Elberta; prolific of yield and ideally suitable for shipping, but it has far better color than its predecessor and, through Bud Selection, we have reduced variation in the yield to a minimum. This parent tree at ten years of age measured 30 feet across; it produces from six to ten bushels of large size Elbertas each year and is absolutely free from peach disease. This strain is the last word in high type Elbertas and should be planted in preference to all others. The fruit is very large, color orange yellow, over-spread with red. Flesh yellow, stained with red near the pit, juicy, firm but tender, sweet or sub-acid, mild. Stone-free. Period of ripening varies with season. September 10th to 20th.

## FERTILE HALE (La Duke)

This new Greening introduction, as the name implies, is a Hale which is self fertile thereby does not require cross pollination. Fruit growers everywhere have been asking for a Hale peach that would produce profitable crops. Greenings again answered the call by producing through Bud Selection, a Fertile Hale peach which will produce full crops of beautiful large Hales, entirely free from the so-called "buttons" so prevalent in crops of J. H. Hale. The trees are far more vigorous and hardier in bud than J. H. Hale. The fruit matures from three to seven days after J. H. Hale. Test trees of Fertile Hale at the Michigan State Experiment Station, came through again this year with a full crop, when J. H. Hale and Elberta had a crop failure, which again proves the extreme hardness for this remarkable new variety. Color yellow, with deep carmine blush. Good shipper. A handsome peach and a splendid market variety. This variety should by all means be included in every orchard planting.

**FITZGERALD** (Overhiser). An improvement over the Early Crawford in that it is hardier and more productive. In size, color and quality, the fruit is almost identical with that variety. Excellent quality. Stone free. If a fruit grower wishes to grow a Crawford type of peach in his orchard, we recommend this variety for the commercial use. Ripens with Early Crawford, two weeks before Elberta.

**GOLD DROP** (Goodrich). Remarkably productive and hardy. This tree bears so heavily that the fruit will average small unless the tree be heavily pruned, thinned of the young fruit and fertilized. This tends to throw more vitality into the remaining fruit. Many of our leading commercial varieties have a tendency to over-bear, which is really an asset and not a serious fault. Medium in size, rounding oval with unequal halves, bulged at one side. Cavity deep and abrupt. Pleasantly and sprightly flavored, excellent in quality. Free-stone. Gold Drop should be in every commercial as well as home orchard. Ripens one week after Elberta.

**GOLDEN JUBILEE.** Of the many new peaches originated by the New Jersey Experiment Station, none have aroused the interest of fruit growers, as has the Golden Jubilee. It is a large early yellow peach of the Elberta type and is an extremely popular early yellow peach. It ripens a few days before Carman and resembles Elberta in tree habits and fruit. The skin is yellow blushed with red, flesh yellow, juicy, tender, sweet, free-stone.

## HALEHAVEN

This marvelous new peach was introduced through the efforts of the Michigan State Experiment Station, South Haven, Michigan. (Mr. Stanley Johnson, Supt.) It is a cross between the famous varieties, South Haven and J. H. Hale. A large beautifully colored, yellow fleshed peach, ripening approximately two weeks before Elberta. A perfect freestone, strong thrifty grower, splendid shipper and an extremely hardy heavy bearer of exceptionally fine flavor. The Halehaven has extremely high color and colors highly on the trees several days before it is ripe, thereby permitting picking while rather green, for distant shipments. Test trees of the Halehaven produced full crops this year at the Experiment Station when crops of many other standard varieties were a failure due to low temperatures last winter. This variety will make you big money and should be included in every planting.



## Greening's Peaches—Continued

**J. H. HALE** (Warner #4). This high type Super-Selected Strain of J. H. Hale is the finest to be obtained. The long Elberta shape type of J. H. Hale is mixed largely in plantings of J. H. Hale, which is very undesirable. Through Bud Selection we have produced a strain of J. H. Hale which will produce the typical large round type of fruit desired in this variety. This Warner parent tree produced three bushels of typical large round type Hales when it was only three years old. Young orchards of the Warner Strain have reproduced this most desired type. The Sun-Glo is recommended as a pollinizer for Warner Strain J. H. Hale.

**KALAMAZOO** (Barden). Medium size, slightly oblong. Yellow shaded with red. Flesh juicy, rich and melting. Highly esteemed in Michigan. This peach has a tendency to overbear. Refer to description of Gold Drop for cultural directions to follow for Kalamazoo. Ripens a few days later than Elberta.

**KIHLKEN SMOCK** (Overheiser). We have discontinued propagating all other Smock varieties because the Kihlken Smock is so vastly superior. Larger, better and more beautiful than Beer's Smock and especially a more abundant bearer of fruit. Originated in the orchard of George Kihlken at Danbury, Ohio, and introduced by us. It is a free-stone peach ripening two weeks after Elberta.

**LATE CRAWFORD** (Improved) (Bugden). Fruit of large size. Color yellow or greenish yellow with dull red cheek. Flesh yellow. Tree vigorous and productive. One of the best late sorts. Free-stone. Ripens with the last of Elbertas.

**LEMON FREE** (Anderson). Almost lemon shape, pointed at apex and of a pale, lemon-yellow when ripe. Large size, excellent quality, a valuable market variety. Flesh yellow, juicy, stringy, tender and melting, sweet to sprightly, pleasantly flavored, very good in quality. Stone semi-free to free. Season of ripening ten days to two weeks after Elberta.

**MARQUETTE** (Graham Experiment Station). The original tree may be found at Marquette in the upper Peninsula of Michigan where it has withstood a temperature of twenty degrees below zero without the least injury. We are positive that this variety can be grown successfully in cold climates where peaches have never been successfully grown before, such as in Minnesota, upper Wisconsin, Iowa and Northern Michigan. Fruit medium in size and round. Flesh creamy white, very juicy and palatable. Good quality. Pit is small and free. Ripens two weeks earlier than Elberta.

**MAYFLOWER** (Williamson). The earliest ripening peach. Medium in size, dark red in color with juicy, tender, white flesh. Quality fair. Tree productive. Ripens last week in June or first week in July.

**NEWCOMB** (Ruall #1). A large round, yellow free-stone peach with red cheek and quality which ripens with New Prolific between "Sun-Glo" and Elberta. Flesh yellow, comparatively firm and of good quality. Tree vigorous, hardy, productive, and spreading in growth.

**NEW JERSEY CLING** (South Haven Experiment Station). This variety originated at the New Jersey Experiment Station. The tree is vigorous, hardy in bud and productive. It has not shown any particular weaknesses at the South Haven Experiment Station where it has been grown and tested for several years. The fruit matures ten days to two weeks earlier than Elberta. It is medium in size, somewhat long, beautifully colored with an extensive red cheek and sufficient golden yellow ground color for contrast. It cans exceptionally well, the texture and color being very satisfactory.

**NEW PROLIFIC** (Barden #4). Introduced by us in 1890. Color golden yellow with rich crimson cheek. Fruit is large, flesh golden yellow and unusually thick and firm. Flavor very rich and spicy. Small pit and free-stone. Tree a strong grower, very productive and hardy. Hundreds of thousands of this variety have been planted. The New Prolific should be fertilized, pruned and thinned for best results. Ripens one week before Elberta.

**ORIOLE** (South Haven Experiment Station). This variety originated at the New Jersey Experiment Station and has been tested in Michigan for several years. It is an early-maturing variety. The tree is vigorous and hardy. During the past winter 95 per cent of the buds of this variety survived a temperature of 10 degrees below zero, which was a better record than was made by some other known hardy varieties. It is an early bearer, beginning at three years of age. It has also been a consistent producer. The fruit is medium in size. Due to its inclination to bear heavily it must be well thinned. The shape is somewhat round. It is attractive in

appearance, having a plentiful supply of red coloring, with enough yellow for contrast. The flesh is yellow, fine-grained, juicy, and of excellent quality. The pit is free. The merits of this variety should not be overlooked. It is splendid for local markets and short shipments. Ripens between Dewey and Rochester approximately one week before Rochester.

**ROCHESTER** (Dunham). A yellow free-stone peach having the exceptional merits of being early, ripening about August 10th; extraordinarily sweet and early bearing. In other respects it compares favorably with the best standard varieties. Fruit is large, yellow in color, prettily blushed. Flesh sweet, juicy and of delicious flavor. It keeps and ships well. Tree a vigorous grower, hardy and an annual and prolific bearer. Season three weeks before Elberta.

**ST. JOHN** (Spencer). A great peach. Fruit large, round, brilliant, showy. Color yellow with a fine red cheek. Flavor unexcelled by any other peach. One of the earliest yellow peaches. Bears young. Moderately productive and ripens three weeks before Elberta.

**SALBERTA**. A new yellow peach originating on the farm of William Rofkar on Catawba Island, Ohio. The growers in the Peach Belt of Northern Ohio think this is a very valuable variety. Size medium to large, nearly round. Color deep yellow with dull red cheek. Flesh yellow, firm and very juicy. Season September, in Northern Ohio.

**SALWAY** (Fowler). Fruit large and roundish. Color deep yellow with a dull red cheek. Flesh yellow, firm, juicy and rich. One of the very best late peaches where it will ripen. Ripens after Kihlken Smock, about three weeks after Elberta.

**SEPTEMBER MAMMOTH** (Wier). Fruit extra large, somewhat elongated. Color yellow, delicious flavor. Free stone. A good bearer and one of the finest peaches to plant for home purposes. The tree originated here in Monroe from a seedling. Of northern origin, therefore harder than the Elberta. This peach was introduced by us after careful observation of its habits and we recommend it highly. Season ten days after Elberta.

**SHIPPER'S LATE RED** (Strau). The fruit is a perfect free-stone, oblong, larger than the Elberta; skin is a fine golden yellow, almost completely covered with a splendid rich red making the well ripened fruit on the tree appear as if it were a solid red all over, and the texture of the skin is such as to give the peach the highest shipping quality; flesh rich yellow, moderately fine grained (no fiber), juicy and of good quality; ripens about one week to ten days after Elberta. A large, spreading tree and a heavy annual bearer. Should not be planted closer than twenty-five feet.

**SOUTH HAVEN**. See Sun-Glo which is our Bud Selected South Haven.

### SUN-GLO (Greenings' Improved Bud Selected South Haven)

Another big favorite among successful peach growers. A prolific bearer of fruit of large size, excellent flavor and quality that is unsurpassed. The celebrated South Haven peach was an exclusive Greening achievement. In the Sun-Glo you have the South Haven at its Super-Selected best, being the second generation of a Greening Super-Selected South Haven known as Tree No. 20 in the Spencer Orchards, in Michigan. Only Greening methods can produce such consistent improvement. Sun-Glo, the hardest of all commercial peaches, is a consistent cropper, producing a full crop of marvelous fruit in seasons when crops of other varieties are destroyed by frost. The Sun-Glo peach and its parent the South Haven, have been the leading money-making commercial peaches since their introduction by us. The Sun-Glo produces full crops under most adverse conditions. The fruit is large, roundish, thick skinned, very uniform in size. Color deep yellow with red cheek. Stone is free. Ripens approximately eighteen days before Elberta, at a time to bring high market prices.

**WILMA** (Wichel). A real Elberta in tree and fruit, but ripens one week later. This variety was discovered by Wm. Rofkar, of Catawba Island, Ohio. It was selected from several hundred seedlings of Elberta and named after his daughter. The variety has steadily increased in popularity on its own merits.

### Number of Peach Trees Per Acre

Distance Apart	No. per Acre
20 x 20 ft. ....	108



## PEACHES—In Their Order of Ripening

For the convenience of our patrons we give herewith a list of Peaches in their order of ripening. This will be of material assistance in selecting varieties for commercial orchards.

Mayflower	.....	Last week of June
Arp Beauty	.....	One week before Dewey
Golden Jubilee	.....	A few days before Carman
Carman	.....	About four weeks before Elberta
Dewey	.....	Ten days before St. John
Oriole	.....	One week before Rochester
St. John	}	..... Three weeks before Elberta
Rochester		
Champion		
Halehaven	}	..... About eighteen days before Elberta
Sun-Glo		
South Haven		
Belle of Georgia	}	..... Two weeks before Elberta. Between St. John and New Prolific
Early Crawford		
Fitzgerald		
Marquette		
New Jersey Cling		
J. H. Hale	.....	About five days before Elberta

We have used the Elberta as the standard because it is well known and is grown more largely than any other in all commercial Peach sections.

Newcomb	}	..... One week before Elberta
New Prolific		
Early Elberta		
Fertile Hale	.....	Three to seven days after J. H. Hale
Elberta	.....	Ripens Sept. 10th to 20th, depending, of course, on the season and location. Crop usually picked in one week
Improved Late Crawford	}	With last of Elberta
Salberta		
Kalamazoo	.....	A few days after Elberta
Gold Drop	}	..... One week after Elberta
Shipper's Late Red		
Wilma		
September Mammoth	}	Ten days after Elberta
Banner		
Lemon Free	.....	With last of Banner
Kihlken Smock	.....	Two weeks after Elberta
Salway	.....	Three weeks after Elberta

## GREENING'S PEARS

The various varieties of pears cover a longer season than any other fruit, with the exception of the apple. It succeeds wherever apples do, but thrives best in heavy clay and clay loams.

In the description of varieties to follow, the name following the variety name in each case indicates the strain and is the name of the orchard in which the parent tree is located, from which propagating buds were taken.

### SUMMER PEARS

**BARTLETT** (Nichol #1). This variety being of paramount importance in pear growing, we have concentrated our efforts on it. Tree performance records were started in 1917 and the final selection was not made until the season of 1928. Our records were taken in thirteen different orchards with a total of over 3000 Bartlett trees under observation. Emphasis was placed on three points of comparison: production, size and shape of the fruit. The object being to maintain good production and to eliminate an undesirable variation known to pear growers as "little green Bartlett," "round" or Kieffer-shaped Bartlett. Since the discovery of size chimeras in apples we have also found them in Bartlett pear trees. This proves that two distinct size types are present in the orchards. The typical large Bartlett shaped strain is mixed with the small round type in much the same manner as Solid red and Striped color types are mixed in McIntosh apple orchards and the Green and Yellow color types are mixed in Bartlett transitional tree growing at the Experiment Station grounds at the Michigan State College (See Journal of Agricultural Research, issue of June 1, 1933, page 1055). Through the courtesy of the United States Department of Agriculture Experiment station we are testing at Graham Experiment Station the following variation in Bartlett pears: Flattened fruit, Russet fruit, Small Russet fruit, Striped fruit, Corrugated fruit, Gray brown russet fruit and Flattened lobed, goose-necked fruits. We secured these buds from L. B. Scott, an associate of Dr. Shamel of the United States Department of Agriculture. These are being tested in addition to the russet color variations which we have located in Michigan. We are calling your attention to these variations to show that undesirable variations are not uncommon and to emphasize the need of keeping the varieties up to a high standard. After these many years of concentrated research we offer this Nicol Strain Bartlett pear which possesses the desired characteristics of the variety with the elimination of the undesirable. The trees are vigorous, prolific producers of fine Bartlett pears that will run true to form in shape and color and bring the highest prices on the market. The fruit is of large size, yellow, often with beautiful blush next to the sun, buttery, very juicy and highly flavored. The trees bear early and abundantly. Bartlett orchards should never be planted solid, since they are not self pollinizing, but should be mixed with another variety that will furnish pollen. We recommend the Bosc, Flemish Beauty, Conference and Howell as desirable pollinizers for the Bartlett. Season last of August and first of September.

**CLAPP'S FAVORITE** (Nye #5). This selection is an annual bearer of large sized fruit. The Production of this strain is very good and it maintains a satisfactory standard for the variety. A large, fine pear, resembling the Bartlett, but without its musky flavor; pale lemon yellow, with red cheek; fine texture, melting, buttery, juicy, with a rich sweet, delicate vinous flavor. Tree hardy and very productive; very desirable in all sections, especially where other varieties fail. August.

**INMAN'S IMPROVED BARTLETT**. Same in quality as regular Bartlett but much larger.

**WILDER**. A very desirable early pear. Attractive in size and shape. Flesh is very sweet enriched with a faint pleasant perfume. Fruit small but edible to the very center, core being very small. The tree is a strong grower, very productive and a handsome ornamental tree. Season first of August.

### AUTUMN PEARS

**ANGOULEME** (Duchess d'Angouleme). Very large; greenish yellow, sometimes a little russeted; makes a beautiful tree; very productive. One of the best. October and November. Succeeds best as a dwarf.

**ANJOU**. The standard market pear for late Fall and early Winter. Fruit large, skin yellow dotted with russet, has faint blush. Flesh is yellowish white, firm but tender. Very juicy, sweet and spicy with a rich vinous flavor. One of the very best. Season, October to December.

**CONFERENCE** (South Haven Experiment Station). This variety was recently imported from England, where it is much esteemed as one of their finest fruits. The Conference pear in England is what the Bartlett pear is in the United States. It is medium to large size, averaging 3½ inches in length, 2½ inches in diameter, beautiful cone shape, greenish yellow, with russet markings; flesh white, with just a suggestion of pink, fine grain, very juicy, has a very rich flavor. In cold storage they keep until Christmas or after; in a common cellar until the first of November. This variety is recommended as an effective pollenizer for Bartlett.

**FLEMISH BEAUTY**. A highly flavored pear, large and beautiful, strong grower and good bearer and a popular market variety. Fruit subject to skin scab, which is easily controlled in the commercial orchard. Season, September to October. Recommended as an effective pollinizer for Bartlett.

**HOWELL** (Nye #9). This selection gives very satisfactory high production of large size fruit. Color light waxy yellow with a fine red cheek, handsome flesh and of good quality. The tree is a free grower and an early producer; very hardy and valuable, especially for the home orchard as it is quite disease-resistant as compared with other pears. Recommended as a pollinizer for Bartlett.



## Greening's Pears—Continued

**KIEFFER** (Foster #1). The parent tree of this strain produces heavy annual crops of large fine fruit. Color rich golden yellow sometimes tinted with red on one side. Flesh lightly colored, juicy with a pronounced quince flavor. Tree very vigorous. An early and big yielder. While its flavor is poor at picking time, if kept in a cellar until Christmas, it is a wonderful eating Pear. Valuable because of its keeping qualities. Season, November to January.

**SECKEL** (Gooding #2). This selection was made to insure large size fruit for the variety. In addition to this the parent tree began to bear annual crops when three years old which is very uncommon for this variety. In quality it cannot be surpassed by any kind of fruit. Tree is very vigorous, productive and quite immune to blight. Fruit is very highly colored and in this strain is larger than ordinary Seckel and very symmetrical. Flesh, very juicy, fine grained and very delicately flavored. Fruit reddish brown color. Season, September to October.

**SHELDON**. A splendid pear for dessert and culinary purposes, especially recommended for the home orchard. Fruit large, roundish, yellow, slightly shaded with red. Flesh very juicy and very delicious. Tree hardy, vigorous and a good bearer. Very blight-resistant. Season, October.

### WINTER PEARS

**BOSC** (Gooding). This is a selection which is true to the type of the variety. The Bosc pear originated in Belgium. Shape oblate-

pyriform, and of very large size. In color it is a beautiful yellow, touched with crimson and slightly russeted. It is undisputed as the most delicious dessert pear known. A medium late variety. The tree, however, is a poor grower, but under our method of double grafting we have restored it to a strong, thrifty, productive tree. This variety always sells at the highest prices on the market. Recommended as a desirable pollinizer for Bartlett.

**CLAIRGEAU**. A very showy and well formed pear; large with stout stem. Color golden yellow with red cheek. Highly flavored. Early. Productive and a reliable cropper. Season, October to January.

### DWARF PEARS

Dwarf pear trees are budded upon quince roots and therefore should be planted below the bud sufficiently deep (three to four inches) to cover the junction. Dwarfs frequently succeed where Standards fail, especially where the soil is deficient in clay loam. It is very important to select the proper variety, as all varieties of pears do not succeed well as Dwarfs. The most desirable are: Angouleme, Bartlett, Clapp's Favorite and Seckel. Plant from 10 to 15 feet apart.

### Number of Pear Trees Required Per Acre

Distance Apart	Number per acre
18 x 18	134
20 x 20	108
24 x 24	75

## PLUMS, APRICOTS, QUINCES

The Plum is the universal fruit. It is grown not only throughout the United States but almost everywhere in the world. With the progress that has been made in the past twenty years toward improving and developing Plums, this fruit should gain greatly in popularity. As some varieties are so deficient in pollen that they do not fertilize themselves, it is advisable to provide for cross pollination of all varieties, Shropshire excepted; and be certain that there are at least two varieties of the same species in the planting. Varieties of Japanese plums are practically worthless as pollinizers for the European varieties.

In the description of varieties to follow, the name following the variety name in each case indicates the strain and is the name of the orchard in which the parent tree is located, from which propagating buds were taken.

### AMERICAN AND EUROPEAN PLUMS

**AUSTRIAN PRUNE** (April). Tree very vigorous, upright, perfectly hardy and is a young bearer and very prolific. The fruit of this Plum is the handsomest and largest in cultivation. The color is an attractive dark reddish purple. Flesh golden yellow, sweet and mild. Excellent quality. A good shipper and keeper. Ripens about the middle of September. Takes highest honors and premiums everywhere. (E)

**BRADSHAW**. Fruit very large, dark violet red; flesh yellowish green, juicy and pleasant. Tree vigorous, erect and productive. Ripens about the middle of August. (E)

**CLYMAN** (South Haven Experiment Station). The Clyman Plum has special merit as one of the earliest good domestic sorts. The Ohio State Experiment Station and the South Haven Michigan Experiment Station from whom we secured the scions, recommended it very highly for an early home and market plum. The tree is rather large, vigorous and productive. Blooming season early and short. Fruits are very large. Color is dark purplish-red with thick bloom. Flesh is pale yellow and dry, firm, sweet and mild but pleasant and of good quality; stone free.

**GERMAN PRUNE** (Meecham). A large, long, oval variety, much esteemed for drying; color dark purple; of a very agreeable and rich flavor. Productive, hardy. September. (E)

**GRAND DUKE** (Hunt #6) The favored late shipping Plum because of its very large size and beautiful color, being of a purple shade. Flesh very firm and meaty. A regular annual and abundant cropper. Usually free from rot and hang in good condition a long time. This strain maintains a high standard for this leading commercial variety.

**GREEN GAGE**. See Reine Claude a far better variety, of the same type.

**GUEII**. Tree a hardy, very strong, vigorous and upright grower, spreading with age and bearing. An early and very abundant bearer. Fruit medium size, roundish oval; skin dark purple, cov-

ered with a thick blue bloom; flesh pale yellow, a little coarse, firm, juicy, sweet, sprightly, sub-acid, free-stone. Last of August and first of September. (E).

**ITALIAN PRUNE** (Fellenberg) (Farnsworth). A fine late Plum; undoubtedly the leading commercial prune variety; oval, purple; flesh juicy and delicious, parts from the stone; fine for drying. September. (E).

**LOMBARD** (Luplow #4). Medium size; round-oval; violet red; juicy, pleasant and good; adheres to the stone. Tree vigorous and productive. A valuable market variety. One of the most hardy and popular. Ripens last of August. (E)

**MONARCH** (Luplow #2). One of the most valuable of the late introductions from England. Tree robust with dense foliage; an abundant bearer. Fruit very large, roundish oval; dark purple-blue perfect freestone. October. (E)

**REINE CLAUDE** (Barden). Surpassing in quality and richness of flavor nearly all varieties listed. Fruit large, greenish yellow; flavor excellent. Season, September. The best of the Gage variety. (E)

**SHROPSHIRE DAMSON** (Nye #3). The orchard containing this parent tree was set in 1912 and our records started in 1919. The parent tree of this strain was chosen because of early bearing and heavy annual production. This strain represents the very highest type for the variety. Fruit small, oval in shape; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. September. (E)

**STANLEY PRUNE**. This variety is a cross between Agen and Grand Duke. The fruit is of the prune type, excellent for cooking or eating out of hand. The tree is healthy, vigorous, and produces full crops annually. The fruit is large in size, prune shape, dark blue with thick bloom; flesh greenish yellow, juicy, fine-grained, tender, firm, sweet, pleasant; quality good to very good; stone free; midseason. This is one of the outstanding new varieties.

**YELLOW EGG**. Fruit of the largest size; skin yellow with numerous white dots. Flesh yellow, rather coarse, sub-acid; fine for cooking. Tree vigorous and productive. Last of August. (E)

### JAPANESE PLUMS

**ABUNDANCE** (Billing). This variety is especially valuable as a pollinizer for Burbank. Medium to large in size. Oblong, amber, nearly covered with bright red and overspread with a thick bloom. Flesh orange-yellow, juicy, melting and of a delicious sweetness. Small, freestone. Tree is a strong grower and an early and profuse bearer. Valuable for canning and market. August.

**BURBANK** (Luplow). One of the best of the celebrated Japanese varieties. Remarkably successful all over the country. No other Plum ever became so popular in so short a time. It has been fruited many years in this country and is perfectly hardy. It seems to succeed in any soil. It can be picked just before ripe



## Plums, Apricots, Quinces—continued

and will ripen and color up perfectly and will not lost its flavor. Will keep fully three weeks perfectly after ripening. Abundant yearly bearer. Fruit large, roundish, dark red or purplish with thin lilac bloom; flesh amber yellow with rich, sugary flavor; small stone; bears second year after planting; needs close pruning. First to middle of August to September. Should be inter-planted with Abundance to insure proper pollination.

### Number of Plum Trees Required Per Acre

Distance Apart	Number per Acre
20 x 20	108
24 x 24	75

### APRICOTS

One of the least known and least grown fruits, although it is very delicious and popular. In addition, it ripens from one to two months before the best early Peach. Apricots should be planted in a northern or exposed situation, which will correct their chief fault, that of blossoming so early as to be caught by frost.

By careful management the Apricot may be expected to be as productive as the Peach and is well worth cultivating. We list only the best varieties.

**ALEXANDER.** An immense bearer. Fruit orange-yellow, oblong, flecked with red; sweet, juicy, very beautiful. Season, July.

**MOORPARK.** One of the largest and most productive. A leading

and very popular variety. Yellow, with red cheek, juicy, sweet and rich, free-stone.

**ROYAL.** Large. Pale orange with faintly tinged red cheek. Highly flavored, slightly sub-acid and good quality. Good market variety. Ripens about August 10th.

### QUINCES

The quince is of late attracting a great deal of attention as a market fruit. It is hardy and compact in growth and requires but little space. It is productive if handled properly and gives regular crops, coming into bearing in about two or three years and continues productive, if well managed, for forty years or more. The fruit is much sought after for canning, preserving and for jellies. It gives a delicious flavor to the apple, cooking in any manner. They should be planted ten or twelve feet apart on deep, rich soil.

**CHAMPION.** A prolific and constant bearer; fruit averaging larger than the Orange, more oval in shape, quality equally fine; bears extremely young, producing fine fruit on two-year trees in nursery row; can be kept in good condition until January. Tree a vigorous grower and prolific bearer; one of the best for sections not subject to early frosts.

**ORANGE.** Large, roundish; bright golden yellow; cooks tender and is of very excellent flavor. Valuable for preserves or flavoring; very productive; the most popular and extensively cultivated of the old varieties. October.

## GREENING'S SMALL FRUITS

### GRAPES

No fruit possesses such a remarkable heritage of popularity as the grape. It is mentioned in nearly all ancient writings, including the Bible. Grapes are to be found in every temperate climate. The earliest settlers of the United States discovered several different varieties growing from Maine to Florida. Grapes have been constantly improved during the years, and are not only a favorite with the commercial grower but possess many advantages for the home garden, as they require but a small amount of space and can be trained over a back fence or trellis.

### BLACK GRAPES

**CAMPBELL'S EARLY.** Suitable for a trellis as it is a hardy and vigorous grower, with heavy foliage and is very healthy. Ripens early and bears abundantly. The quality of fruit is excellent. Matures at intervals between the middle and last of August. A good shipper. Fruit large of black color, covered with beautiful blue bloom. Sweet and juicy. Seeds small and few in number.

**CONCORD.** The best known and most popular of all Grapes. The best for table, wine and market. Succeeds over a great extent of country. Ripens in September.

**FREDONIA.** This variety gives promise of being the earliest good black grape. The vine is vigorous, hardy, and productive, and ripens its fruit two weeks earlier than Worden. The clusters are medium in size, cylindrical and compact; the berries are large, round, and persistent; the skin is thick and tough; the flesh is juicy, solid but tender; and the quality very good. Fredonia stands alone as an early black grape.

**MOORE'S EARLY.** Bunch medium; berry round and as large as the Wilder or Rodgers No. 4. Quality very fine and vine exceedingly hardy. It has been entirely exempt from mildew or disease; in vigor of growth it is medium. Its earliness makes it desirable for a first crop, maturing as it does, ten days before the Hartford and twenty days before the Concord.

**WORDEN.** A seedling from the Concord, which it greatly resembles in color and appearance. It is, however, several days earlier, much more delicious and melting and has a flavor that is equaled by no other grape grown. Berries and clusters are very large and compact; fully as hardy as the Concord and more productive. A sure bearer and a valuable market sort.

### WHITE GRAPES

**GREEN MOUNTAIN.** Color greenish white, skin very thin, pulp exceedingly tender and sweet; contains but one or two seeds which separate from the pulp with light pressure; quality superb. Ripens with Moore.

**NIAGARA.** This white Grape is justly regarded as one of the very best known; very fine quality for a table grape; very prolific, hardy, and of fine flavor. Fruit keeps well if carefully handled.

**PORTLAND.** This variety holds first place among grapes as an

early green variety for the market. The vine is very vigorous, hardy, productive and healthy. The variety is remarkable for its luxuriant and persistent foliage. Bunches and berries are larger than those of any other early green grape.

### RED GRAPES

**BRIGHTON.** A cross between Concord and Diana Hamburg. Resembles Catawba in color, size and form of bunch and berry. Flesh rich, sweet and of the best quality. Ripens earlier than the Delaware. Vine vigorous and hardy. This variety has now been thoroughly tested and it may be truly said to be without an equal among early grapes. Succeeds best when planted near other varieties of grapes.

**CACO.** This is a hybrid produced from cross pollination of Catawba and Concord. It inherits the characteristics of both parents, minus any of their defects. Very hardy yet it equals in high quality and melting texture, the finest variety grown under glass. Very large, wine-red with abundant bloom. Bunch good size, compact and of good form. Ripens in advance of Concord. Vine strong, vigorous, healthy and prolific.

**DELAWARE.** Still holds its own as one of the finest Grapes. Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy without any hard pulp. Has an exceedingly sweet, spicy and delicious flavor. Vine moderately vigorous. Hardy and productive. Ripens right after Brighton.

### Number of Grapes Required Per Acre

Distance Apart	Number Per Acre
8 x 8 Grapes (Trellis)	680
6 x 6 Grapes (Arbor)	1210
6 x 8 Grapes (Arbor)	907

### BLACK RASPBERRIES

**CUMBERLAND.** A mammoth midseason blackcap that holds its stout, stocky canes with handsome fruit. Its great, glossy berries are firm enough to ship well and of good quality. Its hardiness and productiveness among the best.

**GREGG.** Of good size, fine quality; very productive. Fairly hardy. Well known everywhere.

**KANSAS.** Plant is a strong grower; fruit jet black, as large or larger than Gregg. A splendid yielder and hardy. Ripens before Gregg.

**PLUM FARMER.** It ripens its crop in a few days and is early enough to get the good prices. Perfectly hardy; is a good grower and productive. The berry is large and of good quality.

### RED AND PURPLE RASPBERRIES

**CHIEF.** This variety is an offspring of the famous Latham raspberry. This is the new early ripening red raspberry of the Latham type that has astonished expert horticulturists in every section of



## Greening's Small Fruits—Continued

the country with its remarkable growth, and enormous yields of prize winning berries. The Chief ripens with Early King, about ten days earlier than Latham, bridging the gap between strawberries and other raspberry varieties. The Chief plants are unusually healthy, vigorous and perfectly hardy. Remarkable root development and abundance of tough leathery foliage makes it draught resistant and more nearly immune from disease and insects than other varieties. It is an extremely heavy cropper. By planting both Chief and Latham varieties the grower can extend his season of revenue.

**COLUMBIAN.** Color dull purplish red. Bush is a strong grower, attaining a very large size. Good variety for home use but not recommended for commercial planting. Should be planted two feet farther apart than any other variety.

**CUTHBERT.** A remarkably strong, hardy variety; stands the northern Winters and southern Summers. Berries very large, conical, rich crimson, very handsome and so firm they can be shipped hundreds of miles by rail in good condition; flavor is sweet, rich and luscious.

**LATHAM.** The Latham raspberry is undoubtedly the biggest money-maker of all raspberries. It is the finest looking red raspberry on the market and produces the most berries to the acre and requires the least care. An extremely large berry, some measuring an inch in diameter. The color is attractive dark red and the quality is the very finest. The Latham still stands as the greatest red raspberry of all time and we do not hesitate in giving it our unqualified recommendation. In an official test conducted by the Connecticut Agricultural College under the supervision of W. H. Darrow, fruit specialist, the Latham produced 1782 quarts more per acre than the best of other varieties tested with it. In this test the Latham variety produced 5430 quarts of fine luscious red raspberries per acre. At 30 cents a quart, this means a gross return of \$1629.00. Supposing the price was even half of that, bringing \$814.50 per acre. Mr. E. O. Schoembs, Villa Ridge, Illinois, an individual grower, from 500 Latham plants produced the second season \$419.78 net, the third season \$719.12 net. These 500 plants occupy less than one-half of an acre. Our Latham plants are the finest that can be obtained, the famous Redpath Strain which are absolutely disease free.

**KING (Red).** Considered one of the good early red raspberries for the Central West. Most productive in clay loam. Fruit early, medium size. Color light red. Flesh, soft and tender. Quality rather poor.

### EVERBEARING RASPBERRIES

**ST. REGIS (Red).** Fruit commences to ripen with the earliest and continues on young canes until October. Berries bright crimson, large size, rich, sugary with full raspberry flavor. Flesh firm and meaty; a good shipper. Wonderfully prolific. Canes stock, of strong growth, with abundance of dark green feathery foliage.

#### Number of Raspberry Plants Required Per Acre

Distance Apart	Number per Acre
3 x 7 (In Rows)	2074
5 x 5 (In Hills)	1742

### BLACKBERRIES

**BLOWERS.** Originated in the celebrated small fruit belt of Chautauqua County, N. Y. One of the hardiest, most productive of the finest quality and brings on the market the highest price of all Blackberries.

**ELDORADO.** H. E. VanDeman recommends this variety thus: "This berry was noted last year, and is of much promise." It is an oblong, irregular berry of large size, fruiting in pendulous, slender, hairy spikes with few thorns. Color black; flesh deep crimson, with tender core; flavor sweet, rich quality and very good.

**ERIE.** Very large, jet black and early. Perfectly hardy, a strong grower and a great bearer, producing large, sweet berries earlier in ripening than any other sort.

**SNYDER.** Extremely hardy; enormously productive; medium size; no hard, sour core; very few thorns and they are nearly straight and short. One of the hardiest sorts and most profitable for market.

#### Number of Blackberries Required Per Acre

Distance Apart	Number per Acre
4 x 8 feet	1361

### DEWBERRIES

**LUCRETIA.** One of the trailing Blackberries. Fruit is large, soft, sweet, with no hard core. Valuable for family use.

#### Number of Dewberries Required Per Acre

Distance Apart	Number per Acre
3 x 7 feet	2074

### ASPARAGUS

See that the ground is well drained, naturally or otherwise; work it up fine and deep, and make it very rich with well-rotted barnyard manure. Place the plants eight inches apart in rows four feet apart. Spread out the roots in a trench made deep enough to permit their crown to be covered with three or four inches of mellow earth. Give the bed liberal dressings of manure at intervals. Do not cut for use until second season.

**MARTHA WASHINGTON.** The result of careful breeding with the object of eliminating rust. This strain was introduced by the United States Department of Agriculture. Shoots are dark green, tips tight and firm, which do not branch out until well out of the ground. In fact, this variety is so superior that we have discontinued other varieties like Conover's Colossal and Palmetto, as they are so inferior to the Martha Washington.

### RHUBARB OR PIE PLANT

Make the ground rich and deep as recommended for Asparagus. Plant four feet apart each way.

**EARLY SCARLET.** Smaller than Myatt's but extremely early and of very highest quality. The best extra early sort for home or market.

**MYATT'S LINNAEUS.** Those who have never grown this variety, which is of superior quality, will hardly recognize the old "Pie Plant." It is an early, tender variety without being in the least tough or stringy, with mild, sub-acid flavor.

### STRAWBERRIES

There are hundreds of varieties of strawberries, and most of them are good, with favorable conditions. Conforming with our policy of careful selection, we have chosen only the best varieties that will flourish almost anywhere—the varieties that we would plant ourselves. You will not go wrong in planting any of the strawberries listed in this catalog. The season is well covered by these choice varieties. There is sex in strawberries as with other plants. Perfect flowering varieties planted alone will mature a crop of fruit. Imperfect varieties should have perfect varieties planted with them—at least one row of perfects for every two rows of imperfects, to furnish pollen. We indicate after each variety (Per.) for perfect varieties and (Imp.) for imperfect.

### COMMON OR JUNE VARIETIES

**AROMA (Per.).** Held in high esteem because of its long fruiting season, good shipping qualities and large berries of firm texture. The plants are resistant to disease and very productive, and adapt themselves to a variety of soils. Quality very high. Fruiting season midseason until late.

**BUBACH (Imp.).** Very productive, berries very large, handsome and of excellent quality. The foliage is very resistant to disease and the plants can endure very hot sun. One of the leading market varieties. Succeeds best on heavy soil. Midseason.

**BUN'S SPECIAL (Per.).** A new meritorious variety of midseason planting. An exceptionally vigorous plant, making a great number of runners. The fruit is very large and splendid for marketing purposes.

**COOPER (Per.).** This is the largest and most productive Strawberry in cultivation. It is medium early, ripening along with Dr. Burrill and Gibson. Berries firm, solid, sweet.

**DR. BURRILL (Per.)** A wonderful variety of Illinois origin known as the Million Dollar Strawberry. Improvement over the Senator Dunlap. Berries very large and uniform in shape. This great variety is a strong fertilizer and its season of blooming and fruiting is extra long. Large foliage of dark green color and very healthy. This is an excellent market variety for midseason fruiting.

**DUNLAP (Per.).** A medium to large berry, slightly flattened, of a dark crimson shade. Flesh is red, fine in texture and quality excellent. The plant is hardy and a good grower. This variety has been in existence for 35 years and is still a favorite.

**GANDY (Per.)** Handsome deep red, firm fruit of good quality and late season, reaching the market at the very close of the season. It is a splendid fruit for canning or culinary purposes. A very profitable market sort.

**GIBSON (Per.).** One of the best and most profitable sorts for both home and market. Plants are strong growers with long roots and abundant foliage, exceedingly productive. Berries extra large, choice flavored, dark, glossy red clear through.



## Greening's Small Fruits—Continued

**HARVEST KING** (Per.). The most outstanding midseason strawberry of all time. It originated in Northern Michigan where late Spring frosts make it impossible to grow most varieties, Harvest King blooms late and thus escapes the frost. It then quickly matures its fruit and ripens with Dunlap and other well known sorts. The frost resistant quality of this variety alone would make it worth planting. This variety has been subjected to all manner of hardships and adverse conditions and has withstood them remarkably, never failing to produce an enormous crop of the finest fruit. For canning purposes this variety is ideal, as the berries are sweet and require very little sugar. Each berry is firm and red all the way through, retaining its fine flavor and appearance after cooking.

**HAVERLAND** (Imp.). The most productive large berry under cultivation. Season medium early until late. Plants very large, healthy, vigorous, and ripen their fruit evenly and early, holding on through the season. Berries are fine, uniform in shape, very large, excellent flavor and bright red.

**PEARL** (Per.). The only late berry without a fault. Whether you are growing berries for your own use or for market, a long fruiting season is desired and this cannot be accomplished without a late, perfect berry. Pearl can be depended upon to produce a heavy

crop of fine fruit on both light and heavy soil. It blooms late and is therefore ideal for frosty locations. The berries are round, uniform in size, very dark red, solid, ruby-red all the way through, have very small seeds. The flavor is rich and enticing.

**PREMIER** (Per.). The very earliest to fruit, continuous throughout a long season. Fruit large, of good color. Variety noted for its adaptability to varying soils and conditions. Flesh red to the center.

**WARFIELD** (Imp.). A very hardy and healthy, productive plant. Fruits are desired especially for canning purposes, as they retain their color, shape and flavor very well when canned. Berries above medium in size, dark red to the center. A splendid market sort.

### EVERBEARING STRAWBERRIES

**MASTODON**. The Mastodon strawberry has supplanted all varieties of the Everbearing class, and outranks in value all predecessors. It is of immense size, an incredible cropper of choice quality, and the strongest grower yet developed. More productive than most June bearers.

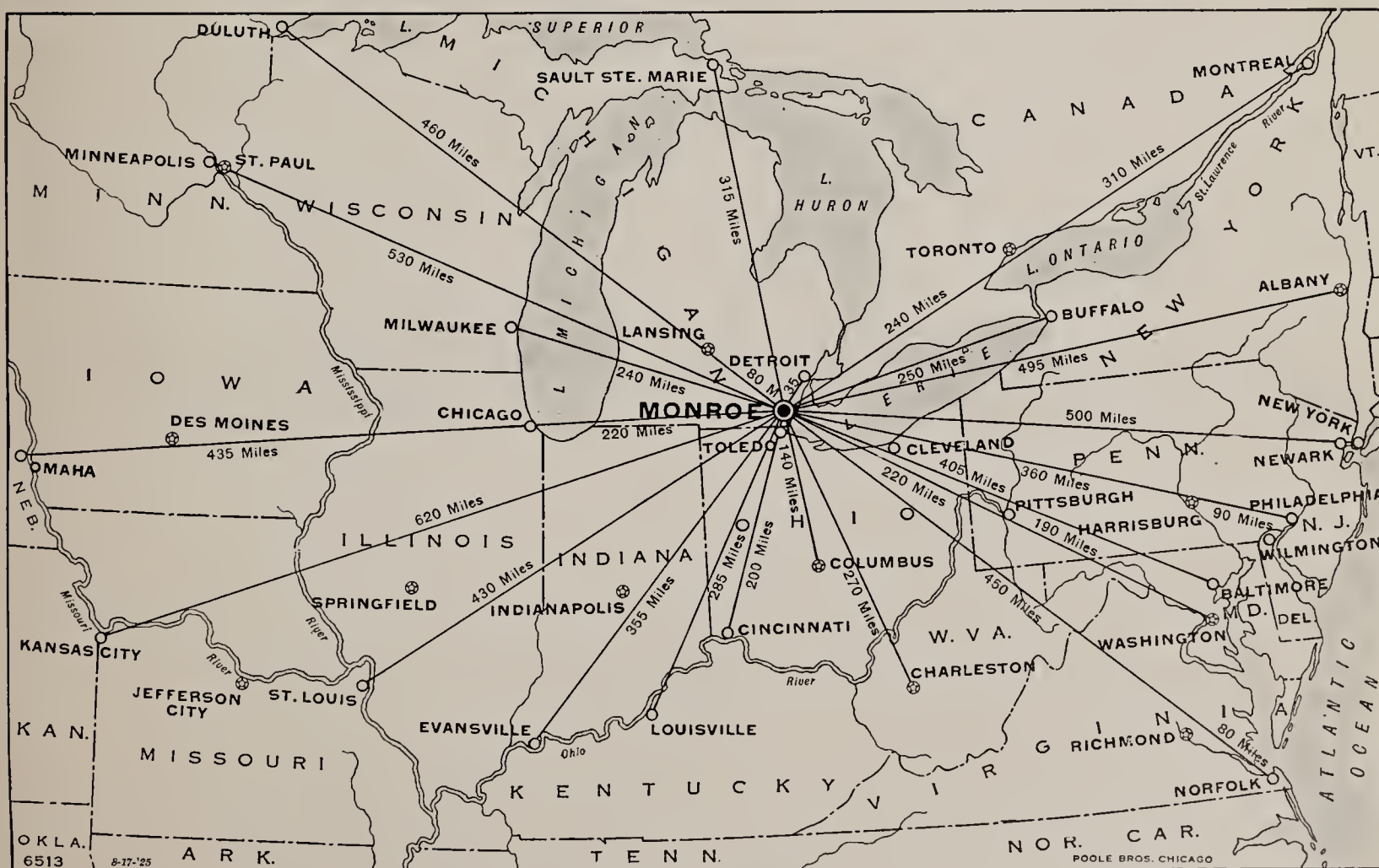
### Number of Strawberry Plants Required Per Acre

Distance Apart	Number per Acre
1 x 4 feet	10890

## AGENTS WANTED

Greening Bud Selection and Greening Super-Selected Fruit Trees offer a pleasant and profitable money-making opportunity to full-time or part-time representatives. A number of desirable territories are now open. One may be in your vicinity. Write today for the complete story of this employment and profit opportunity. Sell the trees that sell themselves!

**The Big Greening Line Also Includes a Complete Selection of Evergreens, Ornamental and Shade Trees, Flowering Shrubs, Roses, Hardy Perennials, and Vines**



Note our central location. Nursery stock demands rapid transportation. Sidetracks connecting with five large railroad systems run to our Packing House. A new cement trunk line passes by its door. Shipments can be made with dispatch either by rail or by truck.





Home Office—Greening Nursery Company, Monroe, Michigan

**PLANT GREENING SUPER - SELECTED FRUIT  
TREES AND YOU PLANT YOUR FEET ON  
THE HIGH ROAD TO BIGGER, SURER,  
MORE CONSISTENT ORCHARD PROFITS!**



Registered Trademark